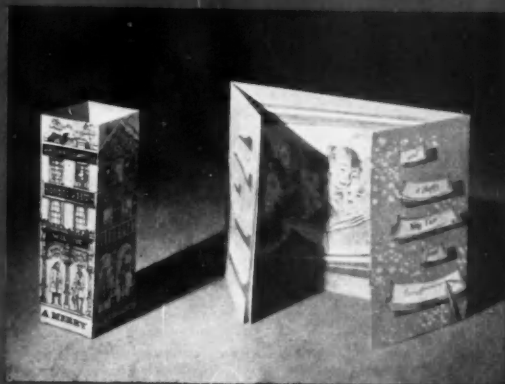


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Design

THE MAGAZINE FOR MANUFACTURERS, DESIGNERS AND RETAILERS



DECEMBER 1951 NUMBER 36

The Council of Industrial Design

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NUMBER 36
DECEMBER 1951

Design

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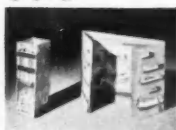
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Design and the Co-ops

FROM ITS MEMBERSHIP, its turnover, its geographical distribution and its very structure the Co-operative Movement is ideally placed to exert untold influence on the taste of the public.

We can say this with no taint of political bias, for in the next breath we must admit that our Co-ops have done practically nothing in their long history to raise the standard of design of their products or to educate the taste of their members. This seems a strange omission when one considers the early inspiration of the movement and the continuing importance that is attached to its educational programme. A glance at the structure of the Co-operative Movement moreover measures the opportunity that has been lost. Where else in the community is there such an organisation, embracing every stage in the cycle of production and consumption, from the factory to the hearth? What other organisation is so well endowed with channels of communication between consumer and maker or so well equipped with the means of education, from the platform to the press? But where else, one must also ask, would one seek and more surely find the commonplace and mediocre in taste and design?

The historians of the Movement may one day explore this blind spot and reveal why Design became the Co-op Cinderella while so many other worth-while aspirations flourished; and why the parents failed to set a standard while their Scandinavian offspring gave so vigorous a lead in the right direction. This is not the place nor the season for such an inquest. We would today rather cheer a small sign of grace, scarcely bigger than a man's hand, which may start something very important. It is a well-illustrated shilling booklet called *Design and Our Homes*, described on its title page as "a book on design in the home and in the shop, raising ideas for discussion and suggestions for activities in groups and classes in the Co-operative Movement." It has been prepared and published by the Education Department of the Co-operative Union Ltd with help from the Council of Industrial Design.

It is not, however, its joint authorship that is important, but the fact that co-operators themselves approached the Council with the suggestion that the Movement was wide open for advice and education in this field.

No body could have been more cautious in its optimism than the

committee which steered this booklet to press, for the Co-operative Movement is too vast to be greatly influenced from one direction alone. But a start has been made. If the consumers in the Movement grow to realise that good design is bound up with what the

Rochdale prospectus called "the moral and intellectual advancement of its members," the more forward-looking of the wholesale and retail societies are certain to press on eagerly—and the rest will follow when a strong lead has been given. P. R.

Notebook

SOME CRITICS have suggested that in recent years the British public has seen enough (or more than enough) of Scandinavian design. Attendances at the latest exhibitions suggest that the British public does not share this view. The Scandinavian furniture show at Heal's attracted more people than any other exhibition held there since the war: on one Saturday morning, the shop had 1,200 visitors as against a Saturday average of 750.

It is too early to quote final attendance figures for the joint Council of Industrial Design and Tea Centre exhibition, *Scandinavia at Table* (which is open until 8 December); but the latest figures as we go to press show that it is the most popular exhibition in the series under this joint sponsorship. It has drawn some encouraging comments—notably Sir Harry Brittain's entry in the visitors' book: "As a lover of these three delightful lands I am more than happy to learn that . . . London is to have the opportunity to see something of their beautiful handicraft. . . ."

It is only if we confuse the craft basis of many Scandinavian industries with the mechanised quality-with-quantity production which has for long been typical of British industry that the Scandinavian influence may mislead.

THE DESIGN MOVEMENT has lost two of its pioneers within a few months of each other—J. H. Mason and B. J. Fletcher.

John Henry Mason, RDI, scholar-printer, was intimately concerned in the private-press movement at the beginning of the century, which paved the way for the present revival of interest in good printing. In 1905 he was appointed to start printing classes at the Central School of Arts and Crafts, and for many years from 1909 onwards, he was a full-time instructor there. He is also remembered for his connection with the pioneer *Imprint* magazine.

Benjamin John Fletcher, OBE, was a practising silversmith, member of the Goldsmiths' Company and

a founder-member of the DIA, and was responsible for many of the early Dryad chair designs. He brought a new sense of purpose to the art schools first of Leicester and later of Birmingham—where he was Director of the Municipal Schools of Art from 1920-8. He died at his home in Somerset, at the age of 83. A few days before his death, he had written a post-card to Gordon Russell saying that he was coming up to see the South Bank exhibition next day.

"TO DISCUSS DESIGN as a Function of Management" was the purpose of a conference held at Aspen, Colorado, a few weeks before the 1951 Design Congress in London. Though it lacked the Congress's international flavour, the Aspen conference had much in common with it—or so we judge from the booklet (now in the Council of Industrial Design Library) in which R. Hunter Middleton and Alexander Ebin very readably recorded their *Impressions*. The main points made by the speakers at Aspen would already be familiar to most readers of this column; here are some of the more interesting incidental remarks:

Leroy Kiefer, of General Motors' Styling Section: "General Motors does not use the public as a proving ground for design. The company depends upon its own judgment and arrives at a decision by selection and experimentation."

Charles Eames, architect-designer (who, we are told, "spoke in a halting manner, but from the heart"): "A feeling of security-and-change is a fine balanced state." Charles T. Goiner, vice-president of the N. W. Ayer advertising agency: "People lose respect for the company which has no respect for its advertising."

Charles Zadok, vice-president of Gimbel Bros, Milwaukee, "stated flatly that good design resulted in more sales for his store, in articles from hardware to high fashion."

TAILPIECE, also from the Aspen *Impressions* booklet: "As a humorous note Mr Gates [Vice-President, Steuben Glass] recalled an old formula for the selection of a chair—*If you can't lift it, buy it.*" A.D.



Christmas

MARKET PLACE OR MODERN STORE?

The shopper is happily free to make his choice between different forms of retailing: and at this time of the year they all have attractions which only a Scrooge could resist. With these two contemporary street-scenes we send greetings for Christmas and for 1952 to all DESIGN's readers.

*Above: Dusk at Ely (Times photo).
Right: Plymouth: after shopping hours
at the Dolcis branch in the new Civic
Centre*



... but once a year

Thirty years' progress in Christmas-card design, with artist-craftsmen as the pace-setters, reviewed

by Noel Carrington

IF WE BEAR IN MIND that a Christmas card is an expression of sentiment, we shall save ourselves from indignation and righteousness. The *function* of such cards is to be sentimental, even if there are a hundred ways of going about it, some not so nice as others.

The religious content of Christmas cards has dwindled with the Christian significance of the feast and is now to many people in this country rudimentary—to say the most of it. But the older foundations of an “end of the year” feast remain, though this may have a different meaning for the city worker compared with what it formerly had for the countryman. Now

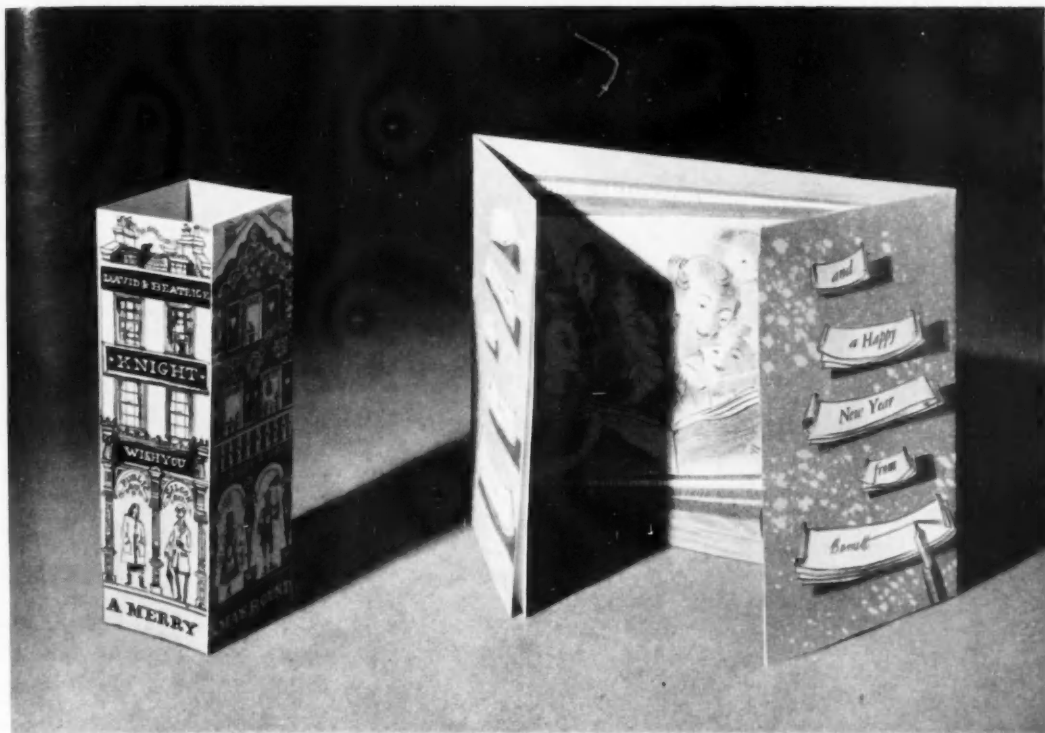
it is chiefly an occasion for remembering friends with presents or at least with greetings; for a gesture going beyond day-to-day relationships. Many substantial trades depend entirely on the sentiment, and a vast number receive an annual stimulus. The distributive trades would be aghast if any dictator endeavoured to abolish Christmas: our politicians know this too well to allow elections to take place in December. Naturally, of all trades, the greeting card business depends most on Christmas (apart from birthdays and Easter). It has become a very considerable industry, consuming thousands of tons of paper, taking millions of



GREETINGS

An early three-colour line-block card in the Hollybush series by Dorothy Hutton, c. 1919

One of F. J. Ward's Ward Gallery cards of 1931-2; in green, red and black; designed by Ann Gillmore Carter



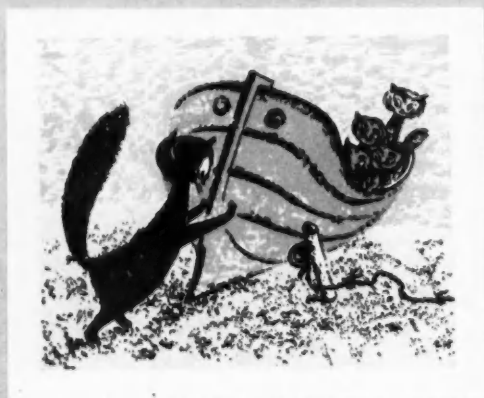
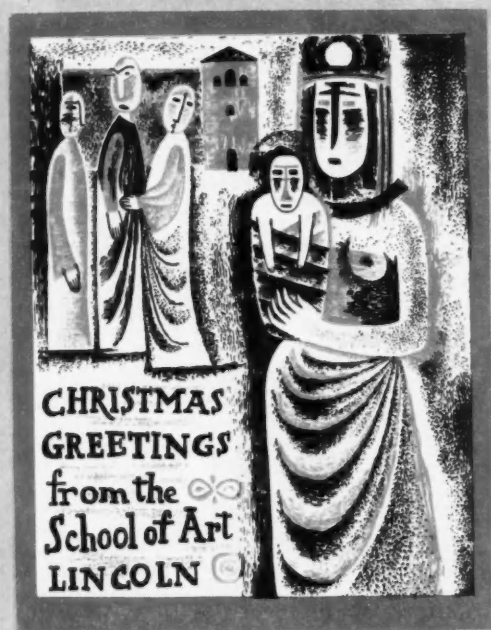
An artist's private greeting card—a folding-box design on the pub motif (by David Knight) . . . and a business card for Chromoworks Ltd, printers—an autolithograph by Barnett Freedman

pounds from the public, and now paying a large sum back to the Exchequer in purchase tax: for, like many other luxuries in life, we have to pay twice for Christmas cards.

In the last twenty or thirty years, cards have undergone a minor revolution in design. At one time it was difficult to buy a trade card which did not offend anyone of aesthetic sensibility. The intellectual classes practically dropped the use of Christmas cards, except for their nannies and rather aged aunts. Artists took to the habit of printing their own cards, generally from wood engravings. A demand arose for reproductions of old masters at the national galleries, and this was also exploited by the Medici Society. In 1919 Dorothy Hutton put out for sale some simple cards of her own designs under the name of *Hollybush*. Miss Hutton had worked at the Curwen Press and was therefore combining her artist's feeling with what she had learnt of printing. Several Catholic presses developed the idea, notably with Eric Gill as engraver, and soon other private presses took a hand. In the 'thirties F. J. Ward broke new ground by commissioning artists like Clifford Webb, Rowland Hilder and others to design simple cards in bright



Typical of the better cards now generally available—a design by Louis Dahl for the Gordon Fraser Gallery. The Christmas theme is reduced to "drinks together." (Original in yellow, red, black and green)

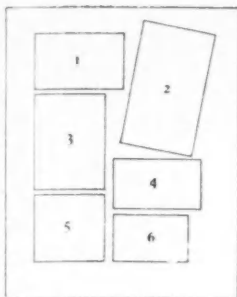


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KEY TO COLOUR PICTURES ON FACING PAGE

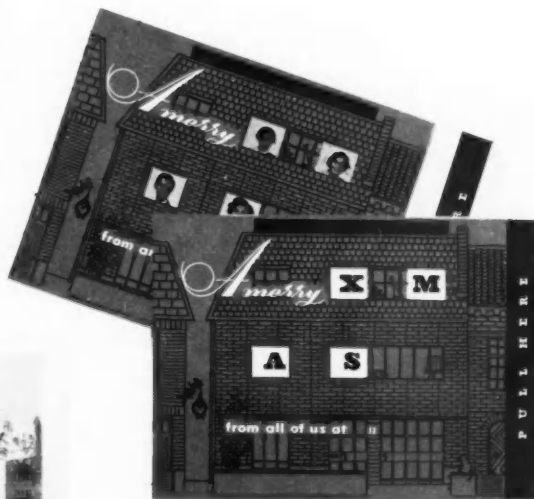
- 1: Designed by Ashley Havinden, RDI, in his well-known freehand brush style, with slight Christmas motif. (Published by Hills and Co)
- 2: Dolcis business card (of 1950—like the other examples shown here)
- 3: Religious card in a contemporary mode of expression
- 4: Silk ribbons and typewriter characters for a private card
- 5: Three-colour card in lithography by Lewitt-Him. Association with Christmas minimal. (Published by Royles)
- 6: Old hand-press as inspiration for a contemporary design from the London School of Printing

colours, where the sentiment was attached to natural history or landscape rather than to the supposed Olde Englishe fare.

Since that time many other firms have taken up the running—Gordon Fraser, Raven Press, Royles and many more—even the veterans and giants of the business have been mildly influenced. It would now be remarkable if a man or woman of the most acute sensibility could not find a greeting card to please either the sender or the recipient. This does not mean that all greeting cards are in good taste, or even well-printed: I could not guess how many would gain admittance to a Temple of Design—but the same might be true of printed dress fabrics or the products of other trades. The Christmas-card trade being strictly seasonal, the trade buyer is chary of experiments which might leave stock unsold in January. What is significant is that millions of decently designed cards are produced and sold today, as compared with a few thousand sold thirty years ago; and it was the artist-craftsman who showed the way.

A secondary development is also of some interest, namely, the growth of privately commissioned Christmas cards for business firms to send their friends or customers. I doubt if twenty years ago one would

have found more than a dozen examples which were not engraved in formal and traditional script. Now many firms "let themselves go" with an abandon which must be delightful to all but tax inspectors. While the mandarins of commerce and industry affect the old print or masterpiece, younger rivals can permit themselves a bit of fancy and entertainment which offers scope to publicity men and commercial artists. It is a competition open to the talents. You manage to convey to your customers that though others may have larger brass plates and more imposing baronets on the board, yet you can talk with wit or knowledge or taste—a profession, at least, of values above the commercial.



(Above) a designer's own Christmas card—a family "pull-out" from W. M. de Majo.
The blue here represents a deep bluish-green in the original



ENTRY TO THE STRAND
1841

(Left) Romantic London: reproduction of a T. S. Boys lithograph—a business greeting card for Recorded Sound Studios by Royles

Industrial design and

THE MACHINERY MANUFACTURER

Special problems of the medium-sized engineering firm : by Alex B. Cooper

THE PROBLEM OF industrial design is important in an engineering firm, making a variety of automatic machinery, even though its importance here may be less obvious than in the consumer-goods industries. The economic justification of industrial design in this field is that, while the specification of a machine is unquestionably of the first importance, the machine will be more compelling to the buyer if it also "looks good"—looks, in fact, as if the manufacturer is proud of it. Moreover, better work is done by people using good-looking machines and tools, in well-proportioned factories, surrounded by balanced colours.

These arguments justify a little extra cost for good appearance-design, though in my experience the buyer will not pay much for it: and, of course, it must not be assumed that better design will result in extra cost—often the reverse is true.

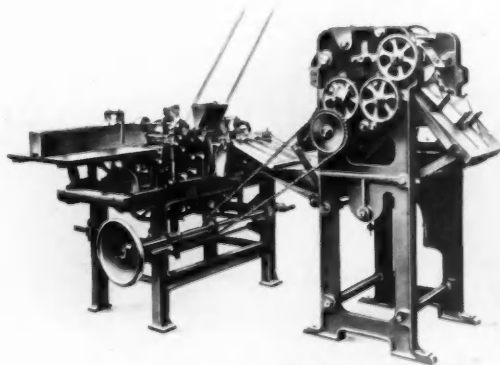
Discussions with experts have shown two main approaches to the industrial design problem:

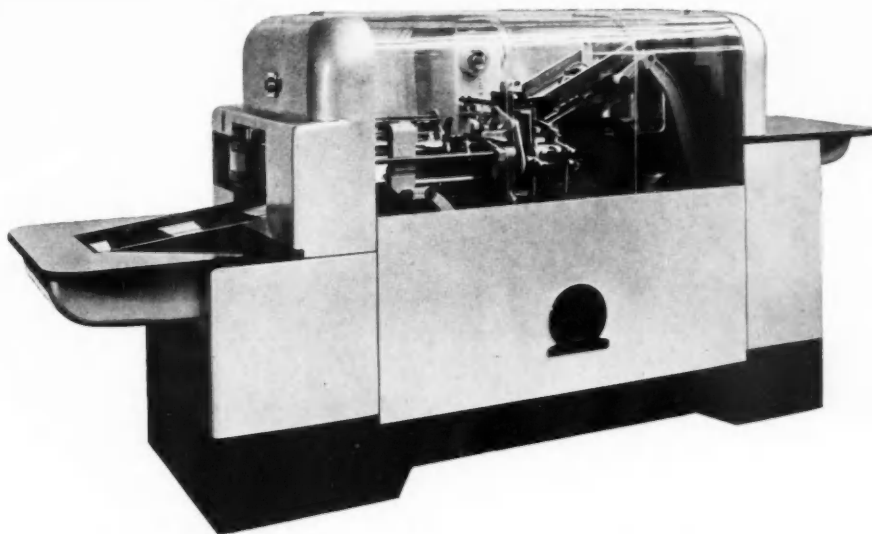
1. In America, and to some extent in Denmark, the firm conviction seems to be that the industrial designer or stylist must be a person whose whole life is devoted to styling since only in that way can a

sufficient freedom and quality of result be ensured. In my opinion, in medium or small firms (which constitute the majority of the engineering industry) the number of products and the small quantities made of any one type preclude the expense of industrial designers separate from and additional to the basic mechanical designers—especially with involved machinery.

2. In Sweden and in this country, the feeling seems to be that excessive freedom is undesirable, since the things we live and work with must not be overstimulating if they are to remain tolerable, day in, day out. The best approach is, therefore, to train men who already have a sound knowledge of techniques in an appreciation of form; and this must include making shapes with their own hands, to strengthen their understanding of the problems involved. The training must awaken a desire for good appearance, so that right from the beginning of a design the question of ultimate form takes its place, along with function, strength and performance, in consideration of the machine's layout and in selection of the mechanism to be employed.

*A bag-making machine
in the old style,
whose design showed
no thought for appearance*





A stocking packing machine in the style of today. Several machines of this design have been installed, in Britain and abroad

Only the second of these approaches interests me. The training cannot be too extended, as it constitutes only a secondary part of engineering training; so it must not be *too* free. Only a privileged few really know what looks right; the rest of us are groping. The bases of good form seem indefinable, and engineers—as men of facts and figures—are suspicious of them. Much of the ability to discriminate can, however, be taught by artists of experience and it can build-up the engineering designer's confidence. Naturally, some men will be more apt in learning than others, and this should guide selection, but the result is bound to be a general raising of the level of design ability.

In searching for a solution which a medium-sized firm (400 people) can afford, I have discussed the matter for some time with engineers, art colleges and design institutes in the USA, Scandinavia, and here, as well as considering the methods which were used in the *Bauhaus*. It seems that generally, whereas some large firms have made great strides, the smaller engineers have been slow to show any enthusiasm though the artists have been anxious to help.

One of the problems is to find time in the training period of an engineer to introduce this aspect of his work. It is likely that it will have to be fairly late, at a stage when he has had a good general grounding in the technical side of his profession and has decided to specialise in design.

My most careful advisers have felt that the best results would be achieved by permitting a trained en-

gineering designer to take a special course in an art college for a year, with a further year during which he maintains contact with the college whilst engaged on his normal work. But, being realistic, they have also felt that since the whole idea is in its infancy, they must begin on a less ambitious scale than this, and first produce some results that will whet the industrial appetite so that necessary funds will be provided for fuller development. The beginning might be made with evening-class courses, so that at first no demands would be made on the working day: I met this type of instruction in Sweden, and we in this country are fortunate in having a number of progressive art colleges thinking on the same lines.

Doubtless a number of young men will realise the potential value of the extra qualifications and will seek them of their own accord, once the courses are made available to them; then we may find a stream of men becoming available with the training we need. In the first instance, however, the lead must come from far-sighted firms and colleges: firms will have to select candidates with special aptitude and support them on their staffs. After some years, their influence will permeate the firm's work and result in a general rise in the standard of its industrial design.

* Mr Cooper is managing director of Strachan and Henshaw Ltd, Bristol, manufacturers of paper converting and packaging machinery (including the old and new examples illustrated here). The firm has a design staff of 30, which is mainly—but evidently not exclusively—concerned with the technical aspects of machine design. EDITOR

The story of a successful experiment by
an old-established wallpaper manufacturer—

'Limited Editions'

In this range of hand-printed wallpapers,
good design once again proved good business



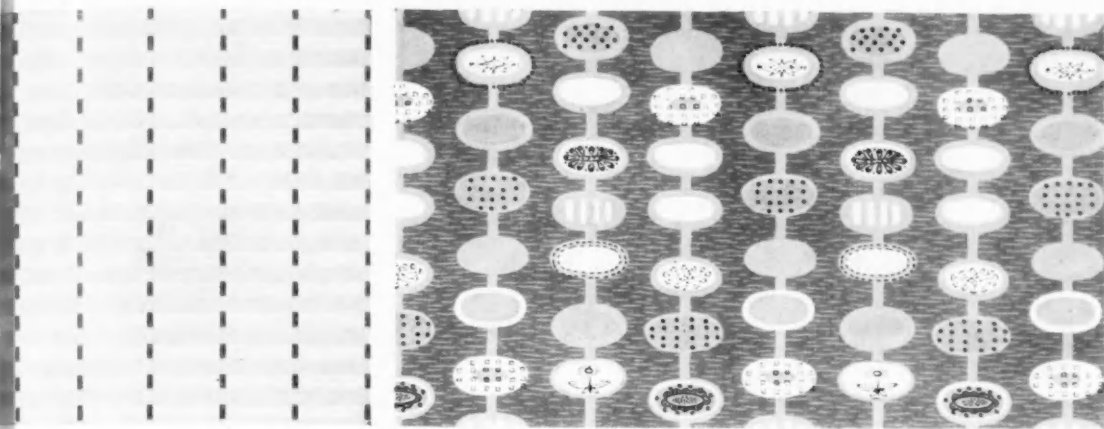
All the wallpapers in the *Limited Editions* range are named. Above is *Isabella*, by Jacqueline Groag; at top of page, *Orpheus*, by Arnold Lever

'LIMITED EDITIONS 1951' is the name John Line and Sons, Ltd, have given to their latest collection of hand-printed wallpapers. The venture was launched by G. Edward Line, a Managing Director of the firm, who commissioned a number of well-known artists and designers to produce designs for a collection which was to aim at something above the ordinary. These included John Minton, Jacqueline Groag, Lucienne Day, Sylvia Priestley, Armfield-Passano, Arnold Lever, Bianca Minns, Bruce Hollingsworth and Olga Lehmann, as well as certain members of the firm's own studio staff.

Modern techniques in screen and block printing are employed, and they have made it possible to produce these papers at retail prices from 19s to 45s per piece. Many of the designs in *Limited Editions* are matched with less elaborate companion papers from Line's general range, either specially designed or specially coloured so that it is possible to build up a complete scheme in the current fashion of using two or more wallpapers in one room. The companion papers are less expensive than the *Limited Editions*, so that a combined colour-scheme of this kind has the advantage of reducing the overall cost considerably.

The collection has attracted much more than favourable comment. It has produced, and is producing, sales—especially among the younger school of architects, decorators and designers, who have used the wallpapers not only for domestic decoration, but also in exhibitions, shops and public buildings; they were prominent in several of the Festival exhibitions.

Some of the designs in this collection are deliberately classical in feeling, but they have all been designed—in Lines' words—"to harmonise in colour



Stanstead matching Provence designed by Lucienne Day, ARCA, FSIA



Troy matching Tuscany designed by John Minton, MSIA



Estelle matching Early Bird designed by Sylvia Priestley, MSIA



Wallpaper used as a decorative panel in a new school at Orpington, Kent, designed by E. D. Lyons, L. Israel and T. B. H. Ellis, AARIBA, in collaboration with S. H. Loweth, FSA, FRIBA, County Architect. The paper is Sylvia Priestley's Early Bird design, shown in closer detail at foot of preceding page

Colour blocks by Wace and Co Ltd; colour photograph above by Peter Pitt

Murania, below, is by William J. Odell, staff designer with John Line and Sons Ltd

and mood with contemporary furnishings." No more fitting phrase than Lines' original advertising slogan, "Studies in Harmony," could be found to describe the collection.

Whilst there is novelty in the idea of "limited editions" in wallpapers, the policy of commissioning work from the best designers is not new to Lines: fifty years ago, when designers such as Lewis Day, Walter Crane and C. F. A. Voysey produced work for them, not only did the firm credit them by name but classified them according to their profession, as "architect," "artist" or "designer." In *Limited Editions*, recognition of the designer has been given throughout the sample book, not only on the back of each pattern, but also on a specially designed end-paper which incorporates the signature of every designer whose work appears in the book. The signature is also shown on the selvedge of each roll.

C. D.



CAST IRON

in furnishing

BY JOHN GLOAG, HON ARIBA

AS EARLY AS 1767, Isaac Ware was advocating the use of cast iron in *A Complete Body of Architecture*, because "a vast expense is saved in many cases by using it; in rails and balusters it makes a rich and massy appearance, when it has cost very little. . . ." He qualified his enthusiasm by admitting that "there is a neatness and finished look in wrought iron that will never be seen in the cast; and it bears accidents vastly better."

Three years earlier, John Adam had become a partner in the Scottish ironfounding firm established on the River Carron in Stirlingshire, called the Carron Company, which gave its name to the carronade, the naval gun that was cast there. John Adam's younger brothers, Robert and James, displayed a lively interest in the possibilities of cast iron, and used it extensively for stoves and panels and urns; and under their influence the Carron Company employed as designers

such craftsmen as William and Henry Haworth, who had studied at the Royal Academy School when Sir Joshua Reynolds was president. As a result of such direction, ornamental cast iron displayed the refinements of the classical tradition during the 80 years between 1760 and 1840; and the plates of Cottingham's *Smith and Founders Director*, published in 1823, showed many examples of the elegant use of the material for exterior and interior decoration. Greek and Roman ornamental motifs appeared on fire-backs, grates, and occasionally on furniture and such small articles as fruit dishes.

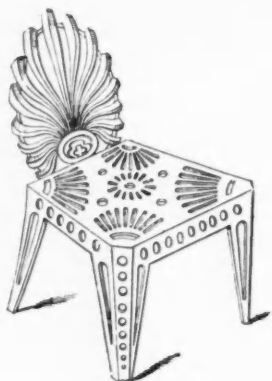
When the material was used for free-standing articles like garden chairs and seats, new possibilities began to be explored. Furniture was cast in iron during the first quarter of the nineteenth century, but the early examples were often clumsy. Loudon, in his *Encyclopaedia of Cottage, Farm and Villa Architecture*



Cast-iron panel designed for the Carron Company by Henry Haworth, c. 1780

DESIGNS FOR CAST-IRON FURNITURE BY ROBERT MALLET

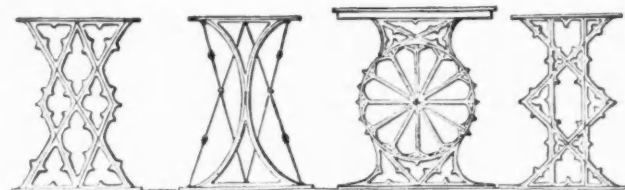
The illustrations are from J. C. Loudon's
Encyclopaedia of Cottage, Farm and Villa Architecture and Furniture (1833)



An Etruscan lobby chair in cast iron. It exhibits a clumsy use of classical motifs, and is ill-proportioned. It could be cast in two pieces, and, as Loudon observed: "It would, therefore, come cheap, and would look exceedingly well in the porch of a cottage in the Italian style"



Chairs in cast iron, designed for use in inn furnishing



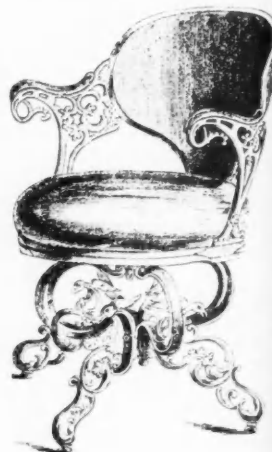
Alternative designs for Gothic framing in cast iron, for supporting tables in inns

(Left) Mallet's design for a chair in cast and wrought iron. The legs are of tubular iron, the arms and back are cast in one piece, and the seat is of wood. This bears about the same relationship to a modern chair as the Ape Man of Java bears to modern man; but it shows a complete independence of prototypes on the part of a young designer, and a determination to get the best out of what was then a comparatively new material



FROM THE 1851 EXHIBITION

Two revolving chairs shown by the American Chair Company of New York at the Great Exhibition of 1851. These were combinations of wrought and cast metal, and their designer used his material with a comparatively light touch



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and *Furniture* (1833), recommended cast iron for lobby and inn chairs; he illustrated an Etruscan design by Robert Mallet, and several Gothic chairs and frames for inn tables by the same hand. This young man, who appears to have been one of the earliest designers of cast iron furniture, was born in 1810, and was the son of a Devonshire man who had settled in Dublin and established an iron, brass and copper founding business. Robert Mallet subsequently became a famous civil engineer, and was made a Fellow of the Royal Society in 1854.

The discipline of the classical tradition was gradually sapped by the increasing taste for what were thought to be Gothic forms; and at the beginning of the eighteen-forties, Pugin complained acidly that "a wiry compound of quatrefoils and fan tracery" was described as "an abbey garden-seat." But his chief complaint was that: "Cast iron is a deception; it is seldom or never left as iron. It is disguised by paint, either as stone, wood, or marble." This was often true; Loudon had given explicit directions for the painting of Mallet's Etruscan lobby chair so that it resembled oak. Occasionally a bronze or dull gold finish was used; but for the innumerable chairs and seats and tables in cast iron that were poured out of foundries everywhere, a plain coloured paint, dark red or brown, was used.

Some of the earlier Gothic designs for chairs and seats and table ends demonstrated the increasing skill of ironfounders; and smaller articles, such as fruit dishes, which preserved the classical tradition, showed how brilliantly that skill could serve a trained designer. But during the middle years of the nineteenth century the material was used for furniture without the restraint that trained designers practise; and seats and tables, umbrella stands and hat stands, were overburdened and their proportions obliterated by the unhappiest mixtures of ornamental motifs drawn from every period.

During the second half of the nineteenth century, new vigour in the design of seats and chairs was apparent, and it owed nothing to the classic tradition or the Gothic revival. The designers who were responsible for it appeared to recognise cast iron as a material that had properties of its own which could be employed not merely for imitation or carrying a load of ornamental devices, but to express the function of a garden seat, for example, in a lavish but graciously decorative manner. It was the first glimmer of understanding—denied even to such skilled practitioners of the classical tradition as Robert and James Adam a century earlier, for their designs for cast iron could just as well have been carried out in plaster, stone or



A cast-iron fruit plate produced by the Coalbrookdale Company, in Shropshire, during the period when Francis Darby managed the art casting foundry between 1830 and 1840. (Illustrated by courtesy of Allied Ironfounders Ltd)

The second example, below, was also cast at Coalbrookdale during the eighteen-thirties. The fineness of detail has become a little blunted, and it lacks the grace of the first





A garden seat, cast at Coalbrookdale; perhaps as early as 1850. Classical motifs are casually intermingled in the back, and the hoof-feet on the front legs suggest a pre-Victorian origin for the design.

(Right) A Coalbrookdale garden chair of late nineteenth century origin. The decoration suggests the influence of William Morris and is reminiscent of the ornamental forms produced by Walter Crane and his imitators.

(Reproduced by courtesy of the British Cast Iron Research Association)

wood. These mid-Victorian chairs and seats could have been made in no other material than cast iron. Such work dates from the eighteen-eighties and early 'nineties, and was probably inspired by William Morris, though indirectly. Some of it certainly suggests the work of Walter Crane and his imitators.

This was the last occasion when cast iron was used for furniture of original design. The stock patterns of seats and tables still came out of the foundries in their thousands, and continued to satisfy a demand, until the early years of the present century. As a material, cast iron made a brief incursion into the history of decoration and furnishing; throughout the period of its use for furniture, it illustrated the superlative technique and skill of ironfounders, and the indolent timidity of the designers who directed them.



THE CHAIRS OF THE YEAR

They achieve elegance in plywood, plastics and electrically welded steel rod: by Alec Davis

IF CHAIRS OF THE YEAR were to be added to Films of the Year, Books of the Year, and other manifestation of popular taste, it is probable that the Ernest Race *Antelope* and *Springbok* models would be successful candidates for public favour. They have been shipped to Scandinavia, flown to Chicago, displayed in Manchester at the Cotton Centre, used in London at the Tea Centre and the Children's Art exhibition: and, most conspicuously, they made a colourful part of the Festival exhibition landscape.

A large proportion of the millions of people who visited the South Bank and Battersea, Poplar, Belfast and the rest, must have seen them and sat on them. "Seen" is important in this context, for the *Antelope* and *Springbok* are not chairs of the useful, necessary but uninteresting kind which you sit on but do not notice; they are noticeably elegant chairs—elegant, moreover, in a contemporary manner. Lord David Cecil, in a broadcast a few months ago, drew a distinction between the pleasure of the eye and the pleasure of the posterior: the Race chairs were evidently designed to give both kinds of pleasure.

From the designer's first "doodles," both chairs passed to the prototype stage without any intermediate appearance in the form of working drawings. The framework of the prototypes was made up from aluminium alloy rod—flexible enough to allow modi-

fications of shape—but it was always envisaged that the production models would be in steel rod, electrically welded, a form of construction in which Ernest Race, FSIA, as designer, and Ernest Race Ltd, as manufacturers, already had considerable experience. The *Antelope* was to have a plywood seat, the *Springbok* a seat and back made up of long coil springs in tension, with covers of coloured plastic tubing to make them (amongst other things) presentable.

Both chairs have been, and still are, generally available: but the anticipated needs of the Festival of Britain were uppermost in the designer's mind when they were first planned. That was at the end of 1949. The Festival plans were slow to take positive shape, and it was not until six months before the opening date that large orders were placed. From then on, production became a Race against time—as well as a battle against material shortages. The centre of interest shifted to the making of tools that would enable the chairs to be manufactured in the quantities required, in the limited time available. These were all designed and made by the firm's foreman smith, John Hansford, and general works foreman, Philip Markey—at a time when the steel shortage was so acute that second-hand sheet steel had to be employed.

To obtain materials for the chairs themselves was another problem; all the plywood seats for the *Ante-*



The Antelope chair is made as a two-seater besides the more familiar form shown in the photograph on right and described overleaf. First illustrated in DESIGN in October 1950, the two-seater is produced by the same methods and with the same tools; the chair frame is split into two halves and straight steel rods are welded into position between them



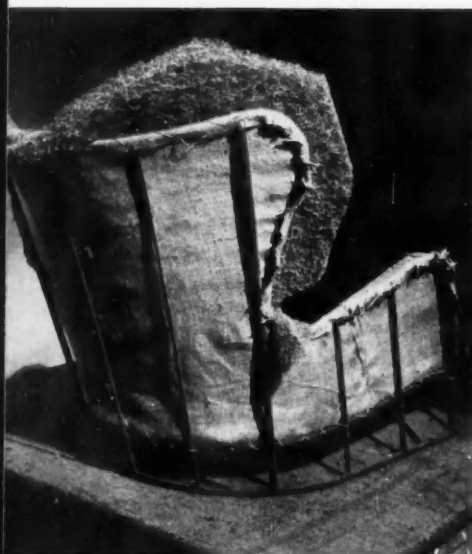
lope were made in Gloucestershire by the National Plywood Corporation, and all the plastic tubing for the *Springbok* (six and a half miles of it, to date) came from BX Plastics; but for most components, "shopping around" was necessary and a number of suppliers were involved.

While the *Antelope* required more tooling, it was a simpler model to make than the *Springbok*: assembly of the latter was complicated by the large number of components—a total of 178 for each chair.

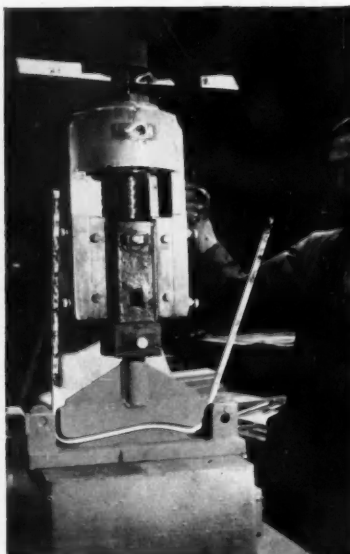
W. Noel Jordan, managing director of Ernest Race Ltd, pays tribute to the co-operation of the firm's workpeople, who for five months extended their normal five-day week by working on Saturdays till

4.30 p.m. and on Sundays till midday, to such good effect that by the opening week of the Festival, 4,500 chairs in the two designs had been produced.

This figure may look unimpressive in comparison with the 6,000- or 7,000-a-week output of large specialised chair factories; but it is much more impressive when it is considered, as it should be, in relation to (a) the small size of factory and the small number of people employed, (b) the unconventional materials and production methods used, (c) the need to organise supplies of materials and bought-out components from firms in various parts of the country, and (d) the fact that production of the firm's normal range of furniture was going on at the same time.



1



2



The exploded view on left shows the components of the *Antelope*. The seat is of moulded plywood, the feet are aluminium castings; the main constructional material is steel rod in three thicknesses— $\frac{1}{2}$ in., $\frac{3}{4}$ in., $\frac{1}{2}$ in. Following pictures show how the design lends itself to the production methods employed:

1: Constructionally, the *Antelope* chair-frame (and the *Springbok*) followed lines with which Ernest Race was already familiar; welded steel framework was already used—though the purchaser might not be aware of the fact—in the firm's upholstered armchairs.

Above left, one of these is seen in a semi-manufactured state.

2: After the steel rod has been cut to length, the legs are formed by sand-

wiching them in the shaping tool shown above, fitted in a hand-press. For both chairs, all metalworking is done cold.

The curved tool in this picture forms the dip in the seat of the *Antelope*. (At this stage the legs are pointing upward instead of downward.)

3: The rough-and-ready jig seen here is successfully used to give curvature in three dimensions to the main member of the *Antelope*'s upper frame. The forward projections of this member have been criticised on the grounds that they look like, but are not, arm-rests; the designer's comment is that they were never intended to be, but that they greatly increase the strength of the structure by triangulating the points of attachment of the upper frame to the



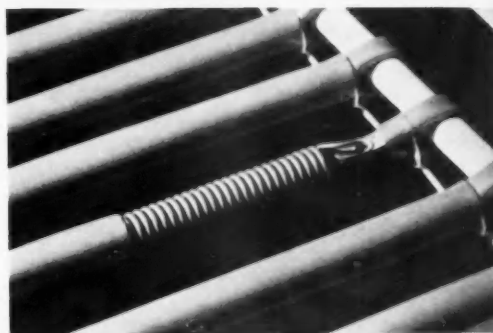
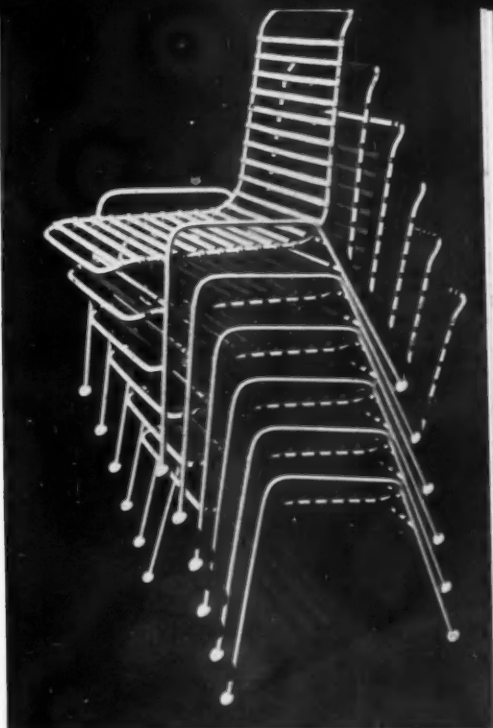
Both Antelope, left, and Springbok can be stacked: the Springbok, right, lends itself especially well to this space-saving treatment

When the Festival began, many people must have wondered whether these light, slight chairs would stand up to months of rough usage and English weather. By the time the Festival ended, it was evident that doubts were unnecessary: the designer's faith was justified.

The resilience of the *Springbok* is derived from the use of coil springs in tension as cross-members of the seat and back. Each spring is hooked at each end into holes in a steel strip which is looped round the side-member: the holes are eyeleted so that the metal strips will not shear through the hooks.

But these details—on which patents are pending—are normally out of sight; a PVC tube covers all but the ends of the steel strip, and these ends are concealed within the larger PVC tube that covers the tension springs. (As the tubes are longer than the springs until the springs are stretched, a device like a buttonhook is used to draw out the hooked end of each spring so that it can be anchored in position.) On right, the cover on one spring has been drawn back to show constructional details.

Wire distance-pieces keep the springs spaced at equal intervals.



4

lower frame; and that they act as convenient handles for moving the chair about—a point of some importance in an occasional seat for indoor and outdoor use.

4: Both chairs are of welded construction. Here is the assembly of back-and-side members of an *Antelope* in the welding jig, which holds all the parts in their right positions while they are "tacked" together by the welder.

When this preliminary welding has been done, the assembly is removed so that final welding can be effected without obstruction; meanwhile, the jig is available for the next one.

The chair frames in these photographs are painted white so that they can be easily seen; normally, painting does not begin until the upper and

lower halves of the chair have been brought together, the lugs to which the seats will later be riveted have been welded onto the cross-bars, and the whole has been treated with a protective rustproofing solution.

When the *Antelope* was designed, and when it went into production, it complied with one of the specifications for tax-free furniture. Recent changes in the specification lay down that a chair with a wooden seat must have a wooden back also: so the designer has evolved the comfortable (but less elegant) chair shown on right, the *Roebuck*, for canteen and similar use. Because of its wooden back it can be sold at £3 18s 6d as against £4 15s, including tax, for the original *Antelope* model.



Design on WHEELS

Small cars—with and without frills

THE OLD Austin Seven has taken its place with the Ford Model T and the bull-nosed Morris in the motor industry's hall of fame and the public's affection. It was shrewd salesmanship on the part of the Austin Motor Company to give the name "Seven" to its new 8.3 h.p. car; few products of any industry can have been heralded by such widespread free publicity.

The makers' declared aim was "big car comfort at small car cost," and at £507 1s 2d including purchase tax, the new Austin Seven is the cheapest four-door saloon on the market today. But it is not the cheapest car, even among the products of the Big Six manufacturers, and certainly it is not the "Minimum Motor-car" or utility runabout which some people had imagined it might be. We still await the day when a major British car firm will design for economy as ruthlessly as Citroën has done in France with the 2 c.v. model, and Professor Kersting is now trying to do in Germany (see page 25). But we may not have so very long to wait: the *Daily Telegraph*, 1 November, reports that "Sir John Black, head of the Standard Company, plans to give a lead to the British motor industry in the production of a lighter, smaller-engined, and 'frill-shorn' economy car"; according to the *Telegraph*, prototypes have already been tested.

Meanwhile, some design points—large and small—of the new Austin are: 1, absence of dollar grin; 2, front wings which can be seen from the driving seat; 3, a four-speed gearbox with centrally mounted gear lever; 4, a compact rear lamp, designed by Joseph Lucas Ltd, in the form of a red transparent plastic lens made from heat-resisting Diakon, without metal frame or housing.



A reminder that forward driving positions and underfloor engines are not altogether new: this Benz van of 1896 or 7 is reproduced by courtesy of Arnolds (Branbridges) Ltd, Paddock Wood, from their first catalogue

Rationalisation for London Transport

IT IS A TRIBUTE to the design of London Transport's pre-war coaches and single-deck buses that their lines find an echo in the new vehicles which are now replacing them. An AEC Regal diesel engine is again installed, mounted flat under the floor as in some coaches of 1937, and the bodywork is generally similar to the 5Q5 buses of 1936—though longer, to take advantage of recent legislation which raises the



The "Chummy" model of the mid-1920's. Between 1922 and 1937, 300,000 Austin Sevens were made and sold



The private-hire coach is one of four variants of London Transport's standard design for single-deck vehicles. Metal bodies for all four types are built by Metropolitan-Cammell-Weymann Motor Bodies Ltd



On the new coaches and country buses, power-operated folding doors are used for the first time in London Transport road vehicles

permissible length of two-axle vehicles to 30 feet.

But the most interesting feature of four new types of single-decker is the degree of standardisation between them. The same basic design is adapted for:

- 1: a 35-seater private-hire coach with transparent roof panels for sightseeing (above);
- 2: a 39-seater Green Line coach (above right, and on cover);
- 3: a 41-seater bus for London Transport's Country Area;
- 4: a bus of the same seating capacity for the Central Area, without the Peters power-operated doors of the other vehicles.

Carrying rationalisation one stage further, the designers have incorporated many mechanical components which are already standard in London Transport's familiar RT-type double-deck buses (illustrated in *DESIGN*, October, page 27).

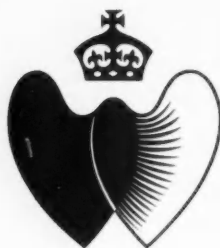
Scott-Ashford Associates and Norbert Dutton collaborated with the Chief Mechanical Engineer's design team on points affecting the appearance—internal and external—of the new coaches.



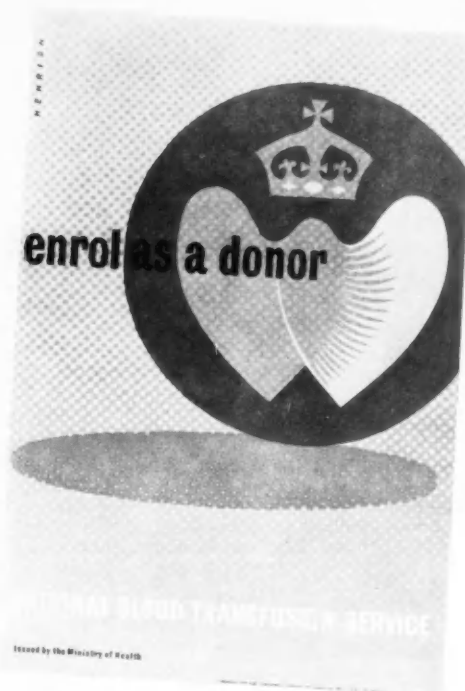
Ruby saloon, 1935-9, showed many refinements but was basically unchanged in mechanical design

The latest Austin (scheduled to go into production in 1952) is conventional in layout, and better-looking than many post-war cars

National Blood Transfusion Service



Henrion's symbol is used in the lapel badge (left) for blood donors, which is made for the Ministry of Health by Collingwood (Jewellers) Ltd. The poster was commissioned from the same designer by the CoI



Royal Festival Hall



Slightly different versions of the Royal Festival Hall symbol have evolved for its diverse uses which include the cap-badge (left) and the poster (right) in which red, yellow and blue symbols are overprinted on a blue screen suggesting sound-waves



THE STORY OF TWO SYMBOLS

AS LONG AGO as October 1946, the Council of Industrial Design held a limited competition, at the request of the Ministry of Health, for the design of a blood-transfusion symbol. The Council's functions had already been defined as including "advice, at the request of Government Departments and other public bodies, on the design of articles to be purchased by them"; the competition provided one of the first opportunities of exercising this function.

The winning symbol was designed by F. H. K. Henrion, FSIA; for a variety of reasons, its use was delayed until the present year. Enamelled badges incorporating the symbol have now been produced in some quantity for blood donors; the design follows

the original closely except that a crown, signifying Royal approval of the blood-transfusion scheme, has been incorporated.

Meanwhile, another Henrion design provides some interesting parallels. This, too, is a non-commercial symbol: it was commissioned for the Royal Festival Hall by the Architect's Department of the London County Council. It had to be adaptable to a wide range of uses, and for this reason the designer produced slightly different versions: in one, the lyre-strings are shown as dotted lines; in the other, which is intended mainly for reproduction in small sizes where the dots might run together, they are continuous straight lines.

One of the most effective applications of the Festival Hall symbol—blocked on the cover of the souvenir book published by Max Parrish



Flatware and cutlery for the Royal Festival Hall restaurant were made by Gladwin Ltd, Sheffield, in their Grace pattern (originally designed by Holmes and Poynton for the use of BOAC) with the addition of the symbol, stamped into each handle

(Left) Printed and silk-screened treatments of the symbol on leaflets giving programmes of Festival Hall concerts, and on a wooden stand in which they are displayed



From Germany

BOTTLES FOR CHEMISTS

IN WUERTTEMBERG, the hundred-year-old *Landes-gewerbeamt*—the central office for the encouragement of crafts—has established a section to advise on the design of industrial products. Here the chemists' bottles shown on left were developed, through drawings and models to production, by Heinz Löffelhardt.

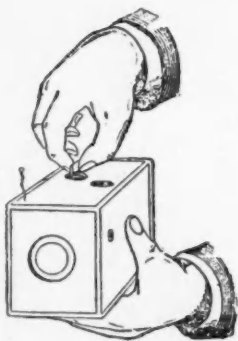
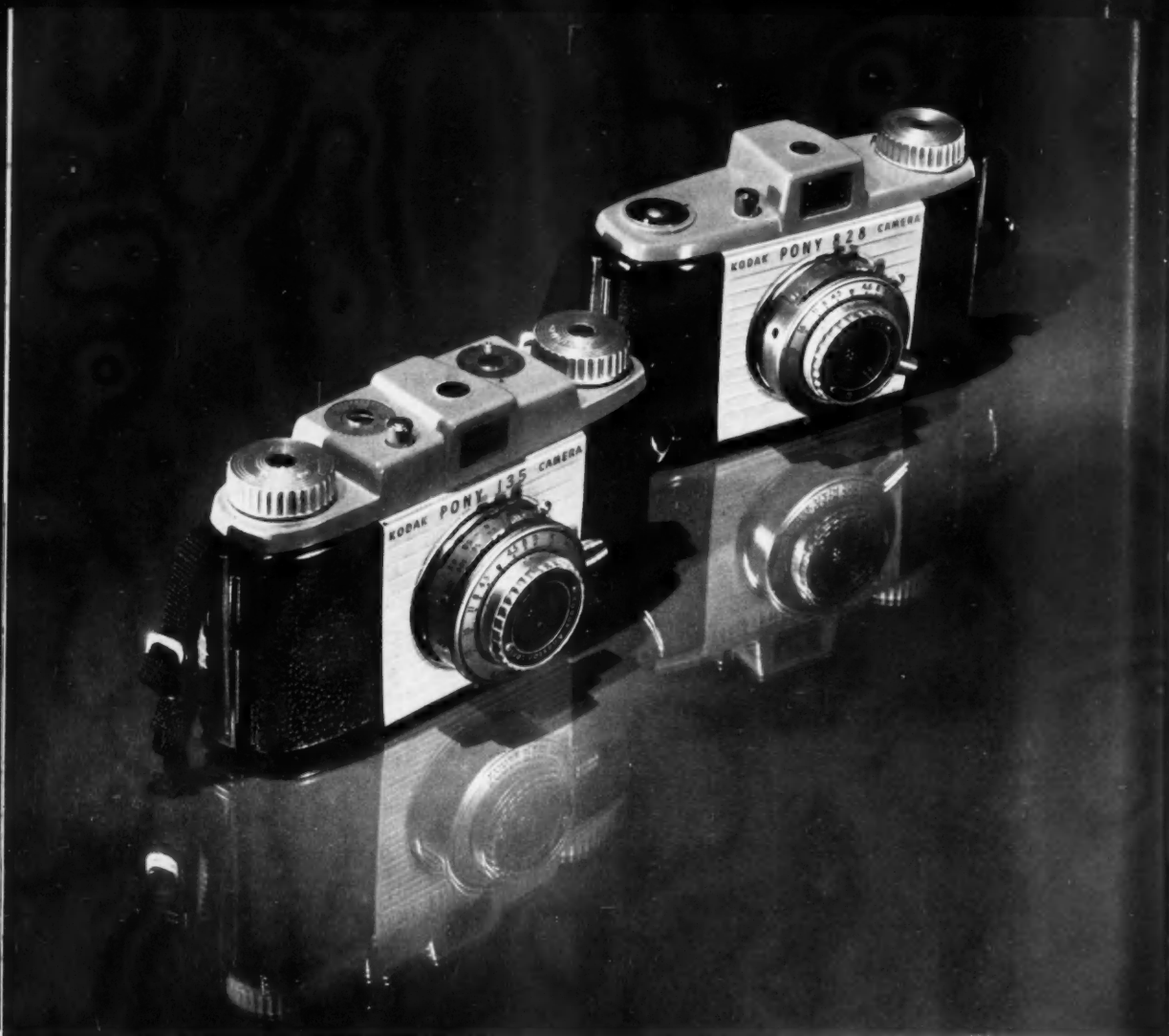
TEA SERVICE FOR PICNICKERS

Compactness is a virtue in the tea service designed by Rosenthal's art director, Dr Otto Koch. The handleless cups stack inside each other and fit into the pot. The handle on the teapot lid forms a carrying-handle also, projecting through the top of the "hand-bag." A British patent has been applied for.

A CAR FOR EVERYMAN?

Designed for economy in production and operation, the lightweight car, below, has been developed by the Kersting Modelwerkstätten. Its most unconventional cost-reducing feature is the one-piece pressed body-shell. The coupé top, which is hinged to this shell, swings back for entry; there are no doors to weaken the structure. (In fine weather, the top can be removed.) The German *Werkbund* has expressed approval of the quality of the *kleine Kersting*, in which, it is claimed, two tall people can travel comfortably. The overall length is 7ft. 8in. Cruising speed is given as 30-34 m.p.h. The engine is a D K W two-stroke.





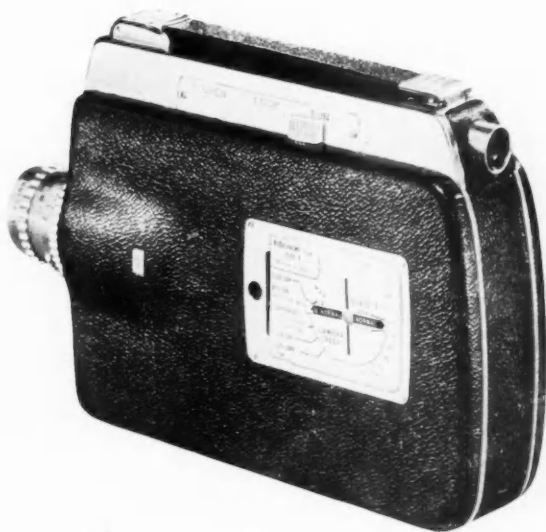
The bodies of the cameras above are made of shock-resistant phenolic plastic, and the tops of medium grey acetate plastic (which is softer than the phenolic and, if dropped, would be more likely to dent than to chip). From the standpoint of design, the surface treatment, which imitates leather grain, is open to criticism. The only excuse for it is the customer's apparent dislike for cameras with any pattern other than leather grain, especially in the higher-priced products. This prejudice will no doubt be broken down eventually by education in the practical virtues of plastics. Kodak designs now under way involve a mechanical tooling of the surface which will have an equivalent "feel" and yet be true to the material.

(Left) The first Kodak camera, advertised by The Eastman Dry Plate and Film Company in *The Photographic Journal*, 28 December 1888 (Gernsheim Collection)

AMERICAN KODAK CAMERAS, OLD AND NEW

THE BULKY and heavy camera on the left of the group below was the first 16mm. ciné camera commercially produced in the United States for amateur use. In 28 years the product has not only been reduced in size but the exterior has been cleaned-up considerably (not all the interim models are included in the photograph).

The last two on the right are designed for magazine loading, which avoids waste of film, instead of spool loading. In the newest of these models, the Cine-Kodak *Royal* magazine camera (also shown in the separate illustration on right), the case is of die-cast aluminium, covered with synthetic leather which is claimed to be more durable than real leather. The Kodak insignia and the name *Royal* appear in red on the front plate.



Over a period of more than a quarter-century, designers of amateur ciné cameras have sought to reduce weight and simplify operation

1923

1925

1929

1935

1950



Standardisation—with style



One of the first applications of the Perpetua italic name-lettering was on this television demonstration van. (The van-painter's version of the type has subsequently been improved on)

BROWN, MUFF'S of Bradford, whose history goes back to 1814, can now be added to the roll of department stores whose names appear in uniformly good and distinctive lettering.

The idea of standardisation was first mooted by Brown, Muff's advertising manager, J. A. Horrox, in 1950. After much experiment, Perpetua italic was chosen—with modifications. Because there is no Perpetua *bold* italic, the main strokes were thickened slightly for the firm's nameplate (as they are also on DESIGN's front cover and title-page); and the designer took advantage of the fact that he was not working in type to attain closer letter-spacing than would have been possible with the type-face itself.

The new nameplate has already been used in many ways—among them van-painting, garment labels and print. The printed matter alone is far more extensive than can be illustrated here: its extent is, indeed, a forceful reminder of the importance of the modern store as a customer for printers. Not only the more obvious things such as newspaper advertisements, booklets and bags, but also book-matches, the backs of till-rolls, wallets for use in the store's photographic department, and suggestion forms for employees all use Perpetua italic; the forms are among the neatest items in the range.

Brown, Muff's first experiments have been so thorough and so evidently successful that one looks forward to further developments: accompanying wording could often be type-set in Perpetua to reflect the character of the name-block; appropriate borders might at times be used; occasionally the lettering could be in white on black or colour. There is plenty of scope for variations without losing the value of underlying recognisable uniformity.

Brown 1
Brown 2

1, on left, is set in 36-point Perpetua italic type. 2 is the thickened version now standardised by Brown, Muff's. Though the height of the letters is the same, this version—designed by W. Musgrave-Wood, of Leeds—gives greater weight in a narrower space

Left, a woven garment-label, paper bags, and a suggestion form. Right, a printed garment-label, reproduced in its actual size, shows that even on a fabric the character of the Perpetua italic is not wholly lost

Brown, Muff's
of Bradford

'ORDERS are pouring in'

THE STORY of the Florence oil heater is a story of sales achieved by technical merit, later lost by unattractive appearance, and now regained by redesign.

It can be summarised in four stages:

1: The first model was introduced in 1937 and sold successfully for about ten years. Then, as now, the chief distinguishing features of the Florence heater were (a) a wickless burner, in contrast with the circular wick of more orthodox designs, and (b) oil feed by gravity from a tank mounted on an external bracket, easily removable for refilling.

2: After the war, sales dwindled to practically nothing. It was evident that this was due to the ugliness of the heater in its original form.

3: The manufacturers, Joseph Sankey and Sons Ltd, approached the Design Advice Section of the Council of Industrial Design, and later, on their recommendation, Allen-Bowden Ltd were commissioned to redesign the larger of two Florence models. The redesigned heater appeared in time for the 1950 season, and was markedly successful.

4: Its success encouraged Sankeys to have the smaller Florence heater, SH/I, redesigned in similar style by the same designer.

The new SH/I is now on the market, and—as this issue of *DESIGN* goes to press—orders are reported to be “pouring in.” Performance and fuel consumption (30 hours per gallon of paraffin) remain unchanged: the new popularity of the heater must be attributed to its greatly improved appearance and the greater ease of cleaning which results from improved finish.

The body of the new model is made up wholly of sheet-steel pressings. Because it is rather less boxy in shape, tooling was more complex than for the old model. The more flowing lines of the pressings are well adapted to the finishing process employed—ivory vitreous enamelling on top and door; with brown crackle finish elsewhere giving a contrast of colour and of texture.



The Florence SH/I heater before and after redesign by John Barnes, MSA, of Allen-Bowden Ltd, Leamington Spa. The new model is 24in. high, 10in. wide, and 12in. deep (with an additional 3in. for the oil tank). Marketed by the Florence Stove and Hardware Co Ltd

The appearance of industrial gas equipment

by F. C. Forder, MM, Assoc. M Inst. Gas E*

THE CHANGING APPEARANCE of industrial plant can be followed through many phases. The earliest designs were rude and simple, mechanising elementary processes with the limited materials available. Later, with the use of iron castings, a period of extreme ornamentation followed; examples still exist of gas appliances or station meters housed in miniature Parthenons with columns and pediments. The two world wars each demanded material economy, and this, coupled with advances in mechanical development and the use of new materials, produced simpler designs. The adoption of current ideas on design has been further accelerated by this country's necessity to boost its exports.

If we study advertisements in the technical press we see, in most cases, equipment whose appearance has clearly been the subject of some thought; on the other hand, we all know of equipment being installed today by old-fashioned firms who apparently admit their deficiencies by refraining from pictorial advertising. Yet the advantages of good appearance lie not only in sales-appeal but in the increased efficiency of the operatives.

Generally the aim of design today is to give a smooth, well-proportioned appearance, with extraneous fittings avoided or brought together under a cover in harmony with the rest of the equipment. In relation to gas-fired industrial appliances, the design problems can be grouped under four main headings:

- 1: cases;
- 2: stand or supports;
- 3: fittings, controls and ancillary equipment;
- 4: flue.

The case

Having the major surface area, the case gives the first impression of the appearance of an appliance. Its shape will naturally be influenced by the shape of the working space or combustion chamber within the appliance.

* Of the North Thames Gas Board (Watson House). This article is summarised from a paper of the same title read by Mr Forder at a meeting of the London and Southern Junior Gas Association

CASTINGS: The use of heavy rough-surfaced castings, jointed usually at the corners and at intermediate positions along the sides, with large bolted flanges, still persists in some appliances. Castings are necessary in some designs but much can be done to improve their appearance. The rough surfaces sometimes encountered (caused by air-holes, mould surface blemishes, etc—not by the sand texture) can usually be remedied by the foundryman. Lighter castings can be of aluminium, which enables a smoother surface to be obtained.

Elimination of flanges, Figure 1, can be achieved by the use of lapped joints as in 2, where the corner has been

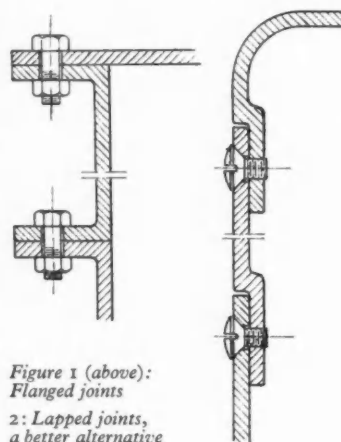
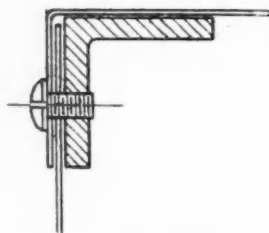


Figure 1 (above):
Flanged joints

2: Lapped joints,
a better alternative



3: Appearance is improved when panels are fitted to the outer surfaces of angle members instead of their inner surfaces

rounded and the outer surfaces maintain a smooth line. The joints are less obvious, and mushroom or raised-headed screws tapped into the inside castings replace projecting hexagon-headed bolts.

It is the practice of certain manufacturers to display their name "writ large" on one of the front castings. We cannot blame them for being proud of their product, but a smaller and more compact nameplate could be fitted with advantage.

ANGLE FRAMES: It is common practice with some smaller appliances to make the frame of welded angle members and to panel with steel sheet. The panels are usually fitted to the inside of the angle members and it may be claimed that extra strength is given to the structure. This condition could be achieved, without extra cost and with improvement in appearance, by fitting the sheet on the outer surfaces of the angles (Figure 3). The folded and lapped covers should prevent buckling of the edges, and at the same time give a smoother finish. Horizontal gaps between the angle and the sheet, which usually develop with buckling and become filled with dirt, should be eliminated. This method simplifies access to the centre of the appliance when repair or rebricking is necessary.

FINISH: The finish of the surfaces is as important as the external form. Sprayed paintwork gives a more even texture than brushed and should be considered wherever possible.

Polished aluminium surfaces usually retain their brilliance for a short period only; an anodised coating, though having a slightly duller initial appearance, retains a lustre in severe working conditions. Where this finish is to be applied, wax impregnation of the oxide layer to seal the pores must not be applied to surfaces that are liable to become warm; and the correct casting alloy must be used.

The polishing charges for aluminium castings can be reduced by substituting a scratch-brushed finish. This gives a more durable matt finish, which can be anodised if required.



4: The GLC sugar-boiler is an example of equipment in which the stand has evidently been designed with the body, not as an afterthought

The stand or supports

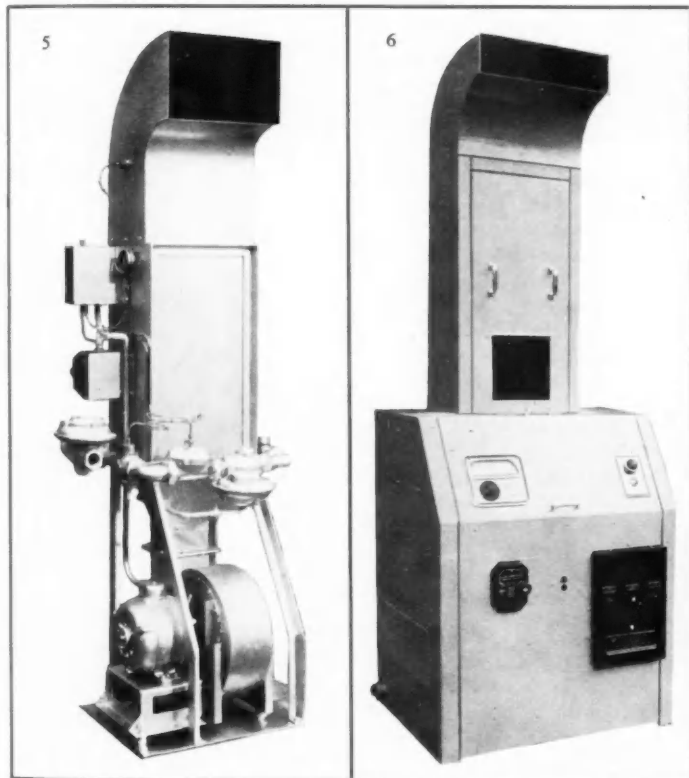
If a stand is necessary, it should maintain the same lines as the body and be in proportion with it. A large body perched on a spindly column or legs can look top-heavy even though the supporting members are of sufficient

strength. Cross-bracing should be kept to a minimum—or avoided; where possible, a single central column is preferable to four closely grouped legs. The practice of extending the legs up the outside of the casing to the top makes unnecessary sharp projections, and should be avoided.

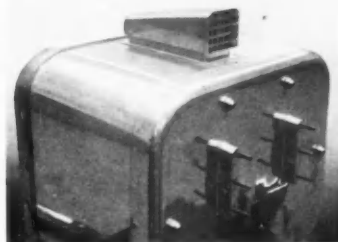
Fittings, controls and ancillary equipment

Very often an appliance is spoiled in appearance by its fittings. In the past the appliance designer was not entirely to blame, for he is restricted to the controls and fittings available from other manufacturers. Recently, some of these controls have undergone a refining process which has improved their appearance—with curved or domed tops, and more suitable materials and methods of casting.

Air heaters provide an example of the use of a number of necessary controls and fittings. Figure 5 illustrates such an installation; it should be compared with a new design of heater, 6, in which



A typical air heater, 5, compared with a new design, 6, developed by the North Thames Gas Board as the basis of a range of heaters with capacities from 300 to 10,000 cubic feet of gas per hour. In this, all fittings are enclosed, but removal of the loose covers gives easy access to them. (The square inspection window, fitted for demonstration purposes, would not normally be installed)



7: Flue cover box of an experimental moulding-powder preheating oven

all fittings and the fan are enclosed in the bottom casing.

Where supply pipes are unavoidably exposed, they should be exactly horizontal or vertical, for a few degrees either way can spoil an otherwise good installation. The ugliness introduced by the use of flanged joints and ungainly supporting pipe clips or brackets must also be considered. Larger supplies can be made with fittings designed for butt welding, which makes possible pipe-runs of uniform thickness.¹

Where fittings are integral with the appliance, appearance can be greatly improved by using as few screwed threads and fittings as possible. They can sometimes be reduced by the use of tubing bent to the desired shape: a saving in the overall cost of material can be achieved.²

Flues

These should be kept in the background or to the rear of the appliance, and alignment is as important for them as for the gas supply pipes.

With appliances which consume only a small quantity of gas and do not require venting, the flue opening is sometimes left as a slotted duct projecting from the top of the appliance. This could with advantage be concealed by a cover as in Figure 7, which shows the flue cover box of an experimental moulding-powder preheating oven.

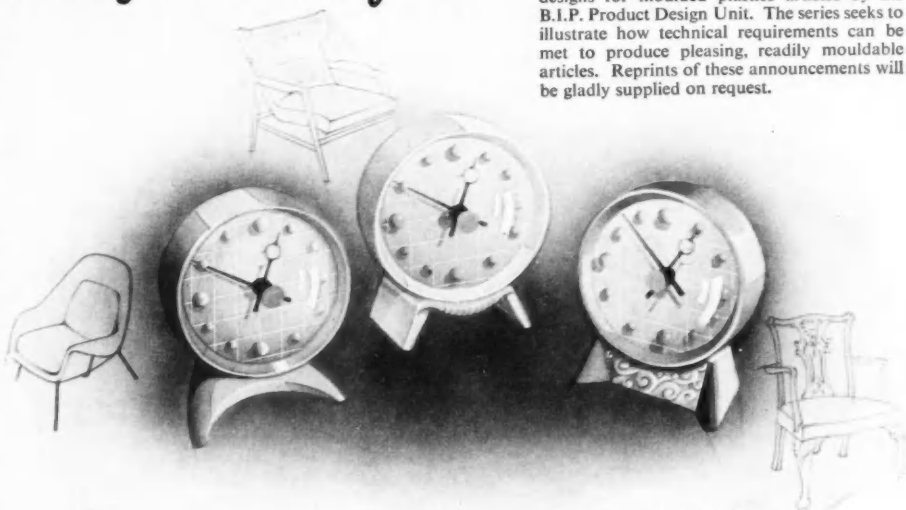
* * *

Uniformity of design need not be feared, for variations to suit the installation's environment can always be made. Indeed, so much industrial gas equipment is made singly that mass production is seldom possible. Carefully considered design must be an attitude of mind, to be cultivated by the designer and draughtsman so that it becomes second nature.

REFERENCES

- 1 "Butt Welded Fittings for Pipe Lines," *The Engineer*, No. 4932, 4 August 1950, p. 131
- 2 See report of Mr Ford's paper in *The Gas World*, *Industrial Gas Supplement*, 7 March 1951, p. 8

Designer's Diary N°2

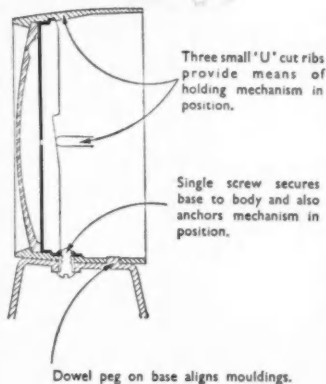


This is the second in a series of indicative designs for moulded plastics articles by the B.I.P. Product Design Unit. The series seeks to illustrate how technical requirements can be met to produce pleasing, readily mouldable articles. Reprints of these announcements will be gladly supplied on request.

The Product. A clock to fit its surroundings. Here is an attempt to provide a simple, readily mouldable clock housing with three separate stands, the characteristics of which suit the product to three representative furniture styles. Using a standard main housing with optional stands is far more economical than designing three separate clocks and just as satisfactory.

The Design. The clocks are conceived as two-piece mouldings for economy and interchangeability. All the bases are made by straightforward up-and-down moulding. The main housings require 3-plate stripper-type moulds to provide for undercuts which hold the mechanism in position. Housings are held to bases by a single screw which passes through into the metal structure to locate the mechanism. Bezels are made deep to protect the domed 'glass'.

The Material. Clock 'glasses' moulded from clear polystyrene or acrylic material, the bubbles being moulded in to give a 3-dimensional effect. Housings moulded from 'Beetle', chosen for its excellent colour possibilities. Vertical and horizontal lines produced by an overcheck material or by engraving on the clock face.



Dowel peg on base aligns mouldings.

Three small 'U' cut ribs provide means of holding mechanism in position.

Single screw secures base to body and also anchors mechanism in position.

The B.I.P. Technical Advisory Service will assist industrial designers and manufacturers who use plastics mouldings in their production processes. Advice is freely offered regarding product styling, mould design, choice of materials and moulding techniques. The Service exists primarily to assist your own designers and technicians regarding those problems peculiar to plastics moulding, with which only a specialist can be completely conversant.

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Material advantages

in a washing machine

redesigned to save metal

SHORTAGES OF SHEET METAL have made it necessary for many manufacturers, in fields not directly concerned with rearmament, to consider the use of alternative materials. H. Fisher (Oldham) Ltd, makers of electric washing machines, have seen in the stern necessities of the time an opportunity for new sales: and they have taken the opportunity by simultaneously introducing new materials and drastically modifying design.

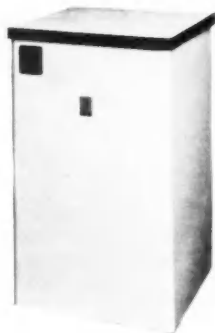
Their standard washing machine formerly had an all-metal body. Now it has a metal framework, with panels of Holoplast plastic composition board which slide into grooves in the metal to form front, back and sides. The unbroken smooth surfaces of the original model have inevitably been sacrificed, but—a more than compensating advantage—the change has made it possible to pack the washer as a set of “knocked-down” components. In this form, it can be exported to most countries at lower packing and freight charges than before, thus offsetting the relatively high cost of the material. Other advantages of the modified design are the

reduced risk of damage in transit, and the greater ease with which mechanical parts can now be reached for any necessary maintenance or repair work: they are accessible on removing one or more of the sliding panels.

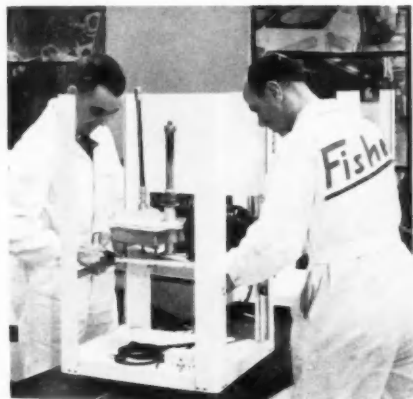
The makers claim that a complete set of components can be assembled by unskilled labour in 15 minutes—and they show their confidence in this claim by sending scale models of the washer, incorporating all the basic structural components, by air mail to potential cus-

tomers overseas, and inviting the managing director to assemble the model for himself in a quarter of an hour of his doubtless valuable time.

The system of assembly from separate components is so flexible that it will be possible for importers overseas to arrange for certain parts of the machine to be made locally, where there are advantages in doing so, while the other parts (including, of course, the basic washing mechanism) are imported from Fishers.

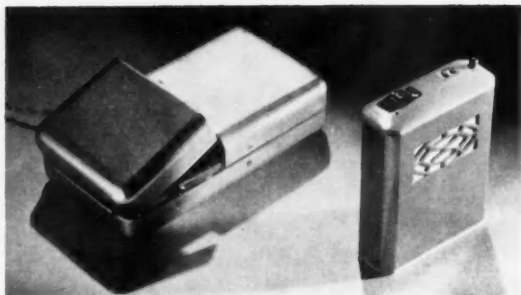


The Fisher standard washing machine (left) before and (right) after redesign to take plastic panels. The newer machine is here illustrated from a small model, produced for publicity purposes

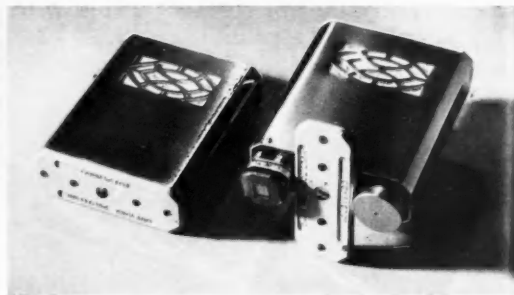


THREE STAGES IN ASSEMBLY: (Left) With the uprights and castors already attached to the base, the transmission platform is added. Besides carrying essential mechanism, this adds to strength of structure. (Centre) The Holoplast panels slide into grooves in the upright members and recesses in the base. (Right) The wringer is attached to the completed washer.

The initiative in adopting this method of construction was taken by F. Lloyd-Kessel, managing director of Fishers



With the older type of hearing aid (left) it was difficult to avoid sharp edges and corners. The Multitone Compactor case (right) is smaller and stronger



These views show the spring-loaded base-plate, which gives easy access to HT and LT batteries. Dimensions of the case are $2.6 \times 2.0 \times 0.72$ inches

Better cases for hearing aids

THE "MINIATURISATION" of radio valves, batteries and other components during the war has made possible the production in recent years of hearing aids which are self-contained except for flex and earpiece. These are naturally more expensive to produce than aids such as the Medresco (the National Health Service Appliance) which have the batteries in a separate container; but their cost is not prohibitive, and they have obvious advantages.

They set a new problem in case design, however, because they must be as compact as possible yet strong enough to carry the extra weight and to stand up to battery-changing by the user.

For some time now, most British and all American hearing aids of this kind have had metal cases. These were, at first, similar in design to the plastic cases which preceded them (which were found too vulnerable in use): usually two stampings of aluminium or brass alloys were screwed together, with half of the back hinged to give access to the batteries. The instrument itself—consisting of microphone, three valves and all associated components and contacts—was built on a moulded chassis or a flat piece of insulating material, completely concealed within the metal case.

A later development was to use plastic chassis whose sides formed part of the case with two metal shells clamped on to form the front and back. One shell, or half of one, hinged to give access to the batteries.

An entirely different form of construction has been introduced in the *Compactor* hearing aid by the Multitone Electric Co Ltd. In this, the top and bottom are plastic mouldings, but the body of the case is a single robust sheath of solid metal, rather like the body of a typical cigarette-lighter . . . and not so very much bigger. It can be

produced from tube, or, by welding along a single seam, from sheet metal. The case has no sharp edges or corners (which are undesirable in hearing aids not only because they look and feel unpleasant but because friction against them helps to cause case noises).

The moulded top of the *Compactor* case forms one end of a thermoplastic chassis on which the instrument, including the two battery contacts, is mounted. The base (the subject of a patent application) is another moulding, attached by a single screw to a spring-loaded metal plate that forms part of the

chassis. The batteries are reached by pulling the base outward and turning it through 90° ; they can then be removed or inserted like cigars in a cigar case. To close the compartment, the base is turned until it snaps back into position. It will not close if turned in the wrong direction. There is no hinge problem, and no risk of accidental opening when in use.

Withdrawal of the chassis from the case, for servicing, could hardly be simpler. The screw on which the base pivots is the only retaining screw, and once it is removed, the whole instrument can be withdrawn from the top.

The case is of brass, satin-chrome finished except for the sides, which are polished bright. The plastic top, base and chassis are light grey.

Plastics for British Railways

"IS THERE . . . any organisation better placed to raise . . . the standard of design in industry than the Hotels Executive of the British Transport Commission?" This question was asked in a leading article in *DESIGN* last January: the present photographs illustrate the Executive's interest in design in the plastics industry. They show two trays for British Railways. Both are of $\frac{1}{8}$ -inch Perspex, formed by blowing in aluminium moulds. The tray shown with cups in it is intended primarily for serving snacks in cafeterias; the other model, for meals in trains. Designed to take the place of three waxed paper throw-away containers, it provides recesses for two courses plus roll and butter, salt, cutlery, and a soft-drink carton which is gripped by the sides of the square recess in the upper right-hand corner of the tray.

Both trays were designed by Rodney Hooper, MSIA, and manufactured by Lacrinoid Products Ltd. Sides of the recesses are splayed, and corners well rounded, for easy washing-up.



Two types of tray by Lacrinoid Products



The car: 'hollow, rolling sculpture'

IS IT REASONABLE to discuss motor-car design in terms of fine-art criticism? The question is prompted by *Eight Automobiles*, a new booklet* which the Museum of Modern Art, New York, has published in connection with an exhibition held at the Museum during the autumn.

"The eight automobiles in this exhibition were chosen primarily for their excellence as works of art," we are told; and they are discussed in such terms as these:

"The Cord consists of vertical and horizontal axes round which its parts are grouped."

"The several envelopes composing the Talbot require only minor punctuation."

"The openings Farina cuts into the jacket [of a Cisitalia saloon] provide some of the most skilfully contrived details of automobile design."

Such comments are valuable for the freshness of their authors' approach, but it must be realised that their value is limited: they could be misleading if they were looked upon as guide-posts for the car designer or for the potential buyer.

"Automobiles are hollow, rolling sculpture," the booklet asserts. This no doubt is true—but of course they are other things as well. Between the two extremes of aesthetics and mechanical performance (which the Museum's selectors were able to take for granted) there are many other factors influencing car design that have nothing to do with sculpture: among them are cost, ease of production, convenience and comfort in use. The selectors must presumably have paid regard to these factors in arranging the exhibition, but the booklet contains little evidence that they did so.

The selected cars have been imaginatively photographed and brilliantly displayed in *Eight Automobiles*. It is noticeable that few of them are of new design; the older cars, dating back to 1930, were chosen "to show prototypes of design that are still valid today."

For the record, the eight are:

American: Jeep; 1937 Cord;
1941 Lincoln Continental;

British: 1948 MG (Model TC);
1939 Bentley with James Young body;
French: 1939 Talbot;
Italian: 1949 Cisitalia with Pinin Farina body;
German: 1930 Mercedes.

A. D.

Printer's Progress 1851-1951 by Charles Rosner is a superbly produced book—primarily a picture-book—which contrasts specimens of printing of 100 years ago with printing of today. The contemporary specimens range from advertisement illustrations to gramophone-record wallets; Mr Rosner has used his unrivalled knowledge of printers and designers in many countries to bring together a selection which is exceptional rather than "typical" (as the publishers' blurb too modestly claims it to be).

The book as a whole has been printed by Balding and Mansell Ltd, Wisbech, and it is published simultaneously in Britain and the USA by Sylvan Press Ltd and by Harvard University Press respectively. The British price is £2 2s.

The *Sixth Annual Report* of the Council of Industrial Design has now been issued, price 1s 6d. It deals with the year ended 31 March 1951—"an exceptional and important year for the Council and its Scottish Committee in view of the approach of the Festival of Britain." The Council's other activities, as well as the Festival preparations, are described, and there are eight pages of illustrations.

US Industrial Design 1951 (Studio, 42s) was prepared under the direction of the Society of Industrial Designers, USA.

Decorative Art 1951-2, edited by Rathbone Holme and Kathleen Frost, is the latest edition of the well-known Studio Year Book (30s).

Written by Hand by Aubrey West caters for the current revival of interest in calligraphy; historical and contemporary examples supplement the text (Allen and Unwin, 7s 6d).

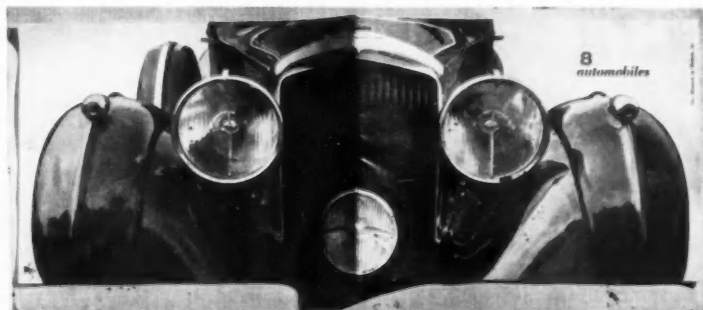
Type in Advertising by Alec Davis includes specimen alphabets of many type-faces. The illustrations include 16 pages of halftone plates, mainly showing examples of contemporary typographical design (Raithby, Lawrence, 15s).

Old Clocks for Modern Use by Edward Wenham (Bell, 21s) deals with timepieces from earliest times to the nineteenth century, with special attention to the collector's needs. Illustrations include some excellent line drawings by Edgar Holloway.

Railways by Leonora Fry (Educational Supply Association, 4s 6d) is not only the first in a new series of books entitled "How Things Developed" but is also the first book to be published by the ESA. It is intended mainly for school use but few adults will fail to learn something from it. Forthcoming titles in the same series are *Roads* and *The Cinema*.

Metals in the Service of Man by W. Alexander and A. Street is a revised edition of a Pelican book first published in 1944. Though it was meant primarily for the intelligent layman, many designers will find it worth studying, especially for its lucid statement of technical facts in chapters on "The Shaping of Metals" and "The Joining of Metals" (Penguin Books, 2s 6d).

For trade publications see page 37.



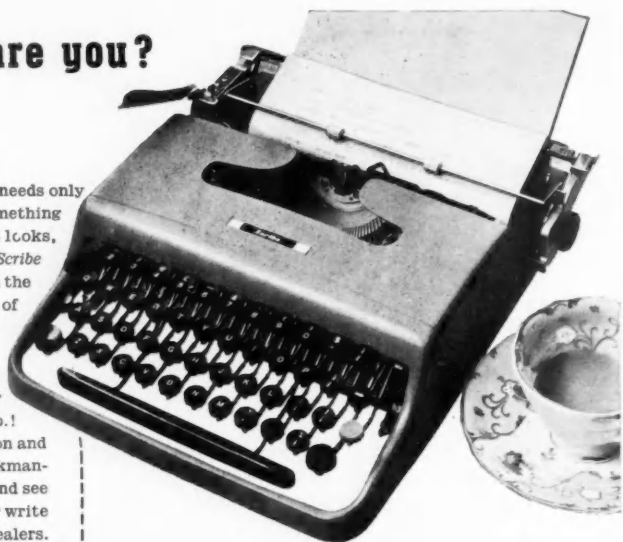
In the catalogue of the *Eight Automobiles* exhibition in New York, Leo Lionni reproduced a photograph of a 1939 Bentley as a double-page illustration 2ft. 2in. wide spread across the front and back covers, with bleed-off on all sides

* No price stated; not at present available in the United Kingdom

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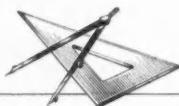
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People

HUGH CASSON, MA, FRIBA, FSIA, who was Director of Architecture at the South Bank Exhibition and was personally responsible for the layout of the Downstream Section and the design of the 1851 Pavilion, has been appointed an RDI.

H. C. TIMEWELL, FRSA, has resigned from the boards of Design Research Unit Ltd and of Stuart Advertising Agency Ltd to take up an executive appointment with the English Electric Co Ltd, as manager of the Company's domestic-appliance division.

W. N. DUFFY, MSIA, has been appointed publicity manager of Ferranti Ltd after long association with the Company, first as consultant "eye value man," then as Chief Industrial Artist responsible for the appearance of all the firm's products.

MILNER GRAY, of Design Research Unit, points out that Ronald Ingles (also of DRU) was jointly responsible with him for the design of the new Amami packs which were attributed on page 13 of last month's issue to Mr Gray alone; and the drawings on the Amami shampoo display outer were by Ruth Sheradski.

The hand-jelly cartons illustrated on last month's cover were printed by Robinsons of Chesterfield, the display outer by Britannia Folding Box Co Ltd, and the tubes by John Dale Ltd.

F. HILLMAN, MSIA, of the Simplex Electric Co Ltd, Oldbury, designed the *Creda* kettle made by that company and illustrated in DESIGN last month (front cover and page 21).

DONALD TUSTIN, a member of the Midland Industrial Designers' Association, has joined Humber's, one of the Rootes Group of companies, as a "styling designer" for the Group.

HARRIS AND SHELDON LTD, shop-fitters and architectural joiners, have moved to new London showrooms at 46 Great Marlborough Street, W1 (Telephone: GERRARD 8955-7).

THE WORSHIPFUL COMPANY OF HORNERS makes an annual award for the best design in plastics, in accordance with conditions laid down. The 1951 award was won by A. H. WOODFULL, head designer of the Product Design Unit of British Industrial Plastics Ltd and Secretary of the Midland Industrial



This hygienic baby-chair was designed after study of the defects of existing types

Designers' Association; his prizewinning design is for a child's chair, made from moulded plastics and tubular metal, illustrated above.

Publications

THE BRITISH COLOUR COUNCIL have published a booklet which gives details of their organisation and the services they offer. A second edition of their *Dictionary of Colour Standards* has been published. Price to non-members is £7 7s (with silk samples), £6 6s (with wool samples).

The annual report of the *International Wool Secretariat* provides a detailed survey of the work of its many departments in Britain and overseas. The text is supplemented by numerous photographs.

Your index to

DESIGN for 1951

Paper economy demands that this year the index to DESIGN (1951 issues, Volume 3) be sent **only to those readers who request it in advance**. The index will not, as in former years, be printed in sufficient quantities to be sent to all subscribers with the January issue. It is yours for the asking, but please ask now; a copy will be sent as soon as it is available.

DESIGN

Tilbury House, Petty France, London SW1

David-Andersen 1876-1951 is a handsomely produced book to celebrate this Norwegian silversmith's seventy-fifth anniversary. Illustrations are captioned in English as well as Norwegian.

Marconi Television shows good design in the equipment illustrated, and in the layout of the book itself (the work of London Typographical Designers Ltd). Excellent photographs show the range of technical equipment.

An Industrial Commonwealth. This book is published by the Owen Organisation and deals with the various Owen factories and their products.

The making of *Precision Castings* by the lost-wax process is described in a pamphlet of this title from Firth-Vickers Stainless Steels Ltd.

Letters

Postscript on conveyors

SIR: I was interested to read of the conveyor system illustrated on page 9 of October DESIGN. While this is most satisfactory where floor space can be kept clear, it would not be suitable where machinery is distributed upon the factory floor.

You may be interested to know of a conveyor system recently installed by my company in a large textile weaving factory in which floor space was entirely taken up by lines of looms. Here it was necessary to employ an overhead conveyor, capable of moving both laterally and longitudinally to reach any particular machine. Owing to the inflammable nature of the textiles it was essential that no sparking should occur. These requirements were met by erecting a monorail of tubular design with internal bus bars for the supply of current at all points, together with rail junctions which could be manipulated to alter the direction of the travelling hoist.

With this apparatus, it is possible for one man to convey heavy beams to any machine in a few minutes, and no floor space is taken up by trolleys, rails or other equipment. . . .

J. T. ROBERTS
James Scott and Co
(Electrical Engineers) Ltd,
Dundee, Angus

The lamp still burns

SIR: A. B. Read's "Case History" in October DESIGN interested me greatly. His description of the evolution of the *Versalite* range showed how much thought had gone into its inception.

I wonder, however, whether Mr Read

considered fully the principle of using the lamps on their sides. This permits a neat solution of the problem, but takes no note of the fact that normal lamps give their shortest life when burnt in this position, since filaments are supported for vertical burning. Surely the first consideration of a functional fitting should be the most efficient use of the light source?

K. S. MORRIS,
Epsom

¶ A. B. Read replies as follows: "The point raised by Mr Morris about burning lamps horizontally and not vertically in *Versalite* fittings is an interesting one. On many occasions where lamps have been used burning horizontally the question of duration of life has been raised with big lamp manufacturers, who have always led me to believe that there are no disadvantages in using their normal lamps in this way. There are many fittings on the market designed by big manufacturers where lamps are used in this position, and before the introduction of the fluorescent tube, long runs of indirect cornice lighting and trough lighting employed lamps burning either horizontally or at a slight incline.

"Many ceiling fittings for use in corridors and other places where there is little headroom have used lamps

burning horizontally, and our experience has been that, where there is adequate ventilation or dispersion of heat, the life of lamps thus used has been normal.

"The advantage of using lamps in a horizontal position in *Versalite* fittings is, in my opinion, justified; any possible disadvantages are outweighed by the simplicity of design and wiring."

Faith in graphs

SIR: In the article "Good Design proved Good Business" (in *DESIGN*, October) I was most interested to see the graph in reference to Morris and Co's *Cumbræ* furniture, and I was immediately impressed by the fact that whilst the *Cumbræ* bedroom furniture graph rises steeply [in the first two quarters of 1951] the *Cumbræ* dining-room furniture shows a marked decline. No reason for this is deduced, but perhaps it may be that in the field of contemporary dining-room furniture the competition is more severe, whilst in bedroom furniture, if a design is tolerably decent, sales arise because other manufacturers' wares are worse.

On looking at the graph more closely I see that it shows "deliveries expressed as percentages of the first full production period." I cannot quite understand how deliveries are expressed as a

percentage of a period but I presume that, to those with more faith in graphs than I have, the uncertainty of deliveries would be clearly shown.

When it is noted that this percentage figure for the final month has reached 1,300 per cent, the claim in your sub-heading that the demand has doubled during the year appears, at first, to be unduly modest, but if it is remembered that when demand was high deliveries were low, it is not surprising to find that the position is now reversed.

A RETAILER

¶ H. Morris and Co Ltd, who supplied the information quoted in *DESIGN*, now state: "The graph referred to deliveries only, and it can be understood that the opposing tendencies of the curves are related to the fact that while batches of bedroom furniture were in production, dining-room furniture was not so intensively produced, and *vice versa*. The other reason deduced by your correspondent may have some relevance.

"The description of the graph should of course be 'deliveries expressed as percentages of deliveries during the first full production period' . . ."

Our sub-heading referred to the increased total demand for both bedroom and dining-room furniture in the *Cumbræ* range. EDITOR

IN RETROSPECT

During this year of 1951 we have produced materials, equipment and machines of entirely new conception to meet the demands of many industries.

Already the Mason "Mercury" and Mason "Hermes" Plan Printers have become established for their excellent performance in the field of photo printing; and new and improved materials, used in conjunction with the complete range of Mason and Arclight copiers, have risen to an annual output of nearly 15,000 miles.

The famous "Barcro" Camera Projection Unit has been given new and revolutionary features and represents a great achievement in all-metal construction for the highest efficiency in every type of photographic drawing, plan and document reproduction.

Those are but a few of our contributions to industry during this momentous year. We shall not rest upon our laurels, however, but shall continue to explore every sphere in which development is possible, using to the full our comprehensive research department and our experience of nearly 50 years.

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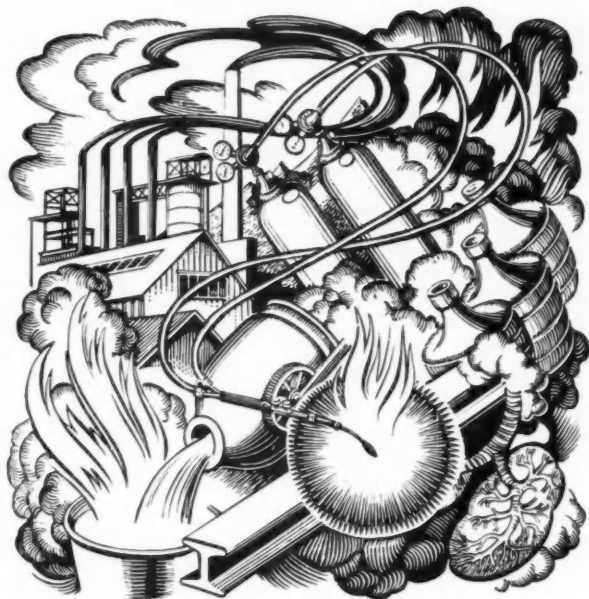
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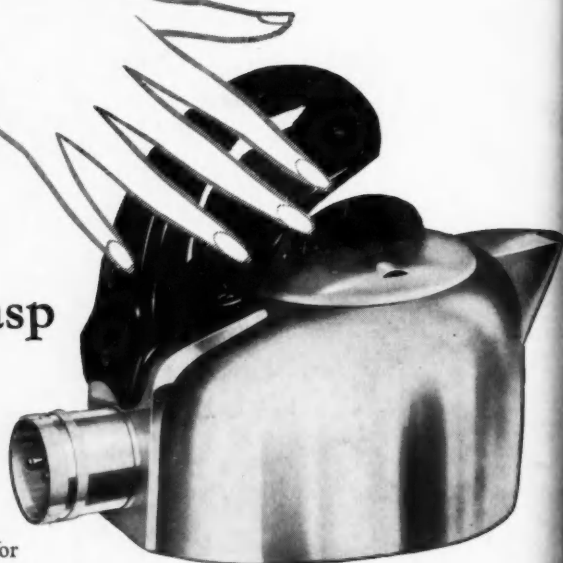
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Design

IN THE FESTIVAL

PRICE FIVE SHILLINGS



THE COUNCIL OF INDUSTRIAL DESIGN

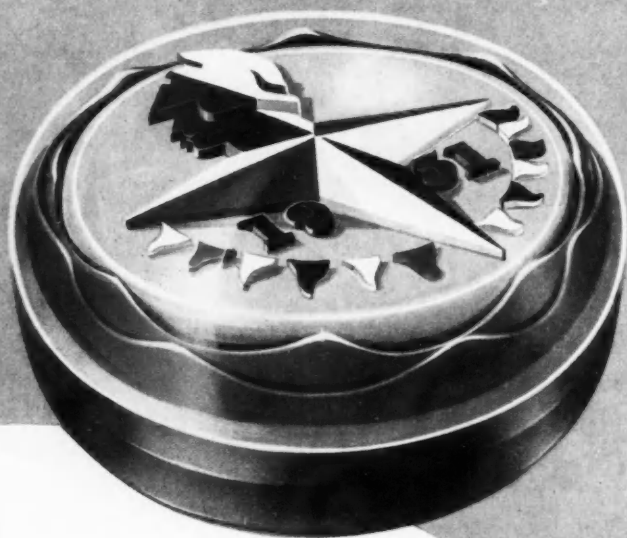
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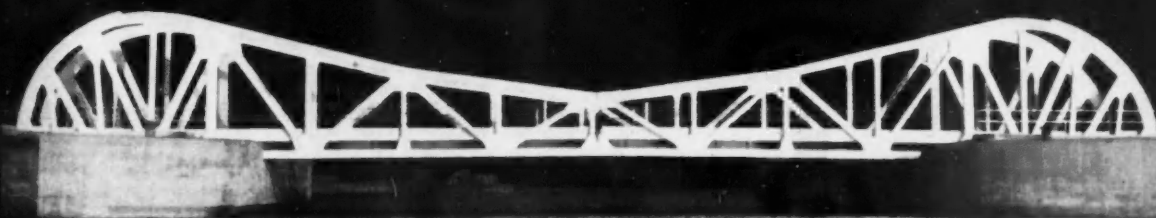
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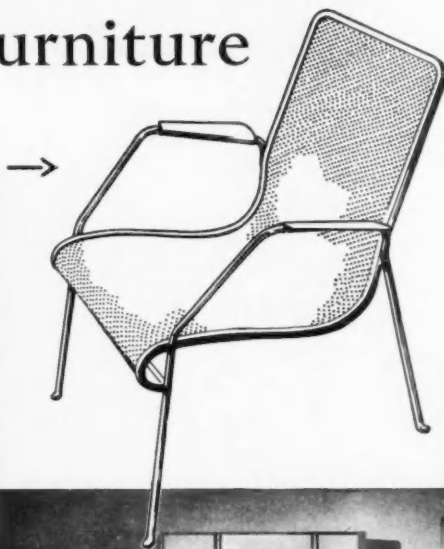
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*Sideboard in Yugoslavian Beech,
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*Easy Chair, designed
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*Dressing Table in French Walnut
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that it was all on paper
remember that only on paper
has humanity yet achieved
glory, beauty, truth, knowledge,
virtue and abiding love."*

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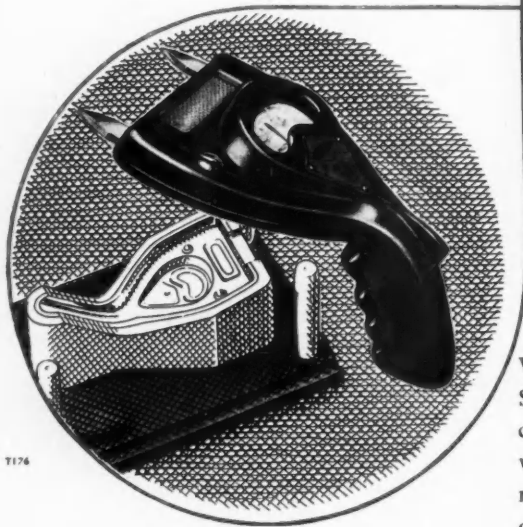
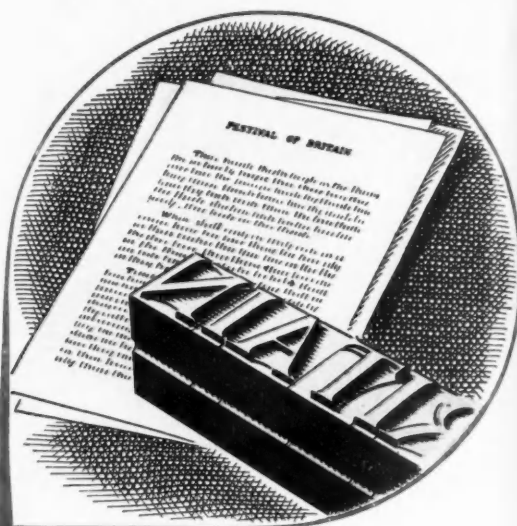
Time has swept away many of the things that did so much to waste it — many that are now remindful of hours grudgingly and drudgingly spent



THE modern way of life has demanded and developed the means of living it. Among the striking examples of progress, there is none more outstanding, in the domestic scene, than the Morphy-Richards Safety Electric Iron — famous all over the world as 'the iron with the tell-tale light.' Here indeed is true design for efficiency and for ease.



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to the Writer*



*So is Moulding
to the Designer*

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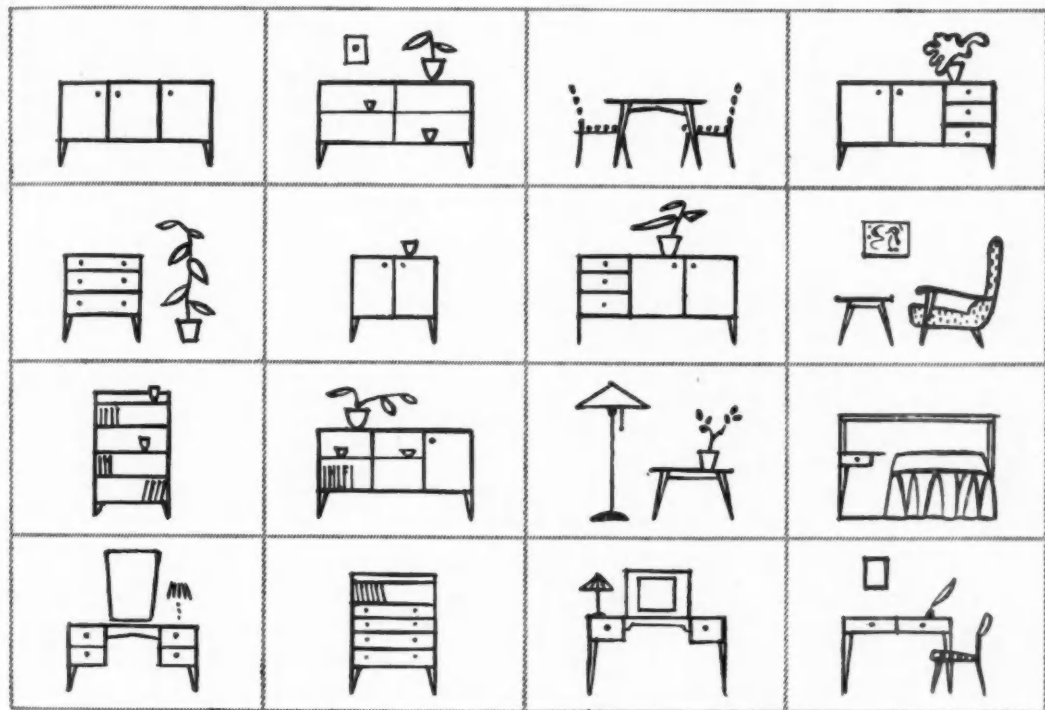
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In medieval times Church, Court and Castle were the great patrons of art. Today, this responsibility falls largely upon industry, whose patronage is no favour but a necessity. Good design commands attention and is the hallmark of quality; it is also a measure of an industry's achievement.

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Design

IN THE FESTIVAL

illustrating a selection of well-designed British goods in production* in the Festival year 1951, with an introduction by Gordon Russell, and articles by eleven contributors



Published for THE COUNCIL OF INDUSTRIAL DESIGN
TILBURY HOUSE, PETTY FRANCE, LONDON, SW1 *and*
THE SCOTTISH COMMITTEE OF THE COUNCIL OF
INDUSTRIAL DESIGN 95 Bothwell Street, Glasgow, C2
by His Majesty's Stationery Office, London, 1951

* The goods illustrated in this book were current at the time of going to press. They are included in the 'Design Review' section of the South Bank Exhibition in London and many of them are actually exhibited in this or other official Festival Exhibitions

Foreword

POPULAR AND PROFITABLE as it was, the Great Exhibition of 1851 in the Crystal Palace failed in one of its important objectives which H.R.H. the Prince Consort had often stressed. It did not lead to any noticeable improvement in the standard of the industrial arts. One reason for this, which was not fully appreciated at the time, was that the exhibits were not selective. The 1851 Exhibition was, in fact, the first great international trade fair showing a very wide range of products. It was the forerunner of the international exhibitions which have since then been held in many parts of the world, and of the national trade fairs. The British Industries Fair is an outstanding example of the latter type, and performs a vital function today.

The 1951 Festival of Britain Exhibitions are in no sense competitive with, but are complementary to, the British Industries Fair. The centenary exhibitions are selective, for one of their avowed aims is to show a high standard of design. The manufactured exhibits have been chosen on two counts. First, on their suitability to the narrative or argument of the exhibition and, secondly on their design, including high quality of workmanship and materials, engineering excellence, fitness for purpose, decorative or æsthetic appeal and value for money. They are not a collection of exhibition stunts but a sober record of the best achievements of British industry. All exhibits are either already in, or about to go into, production.

As is proper in a Festival which marks a hundred years of progress, the emphasis is on current production and on contemporary development. But the Council of Industrial Design, which has been responsible for the selection of all manufactured exhibits, approached the problem in as catholic a manner as possible and enlisted the help of British industry in fulfilling its exacting commission.

This book reinforces the message of the Festival Exhibitions. It offers a quick survey of industrial design through a wide range of manufactures and will, in years to come, provide a valuable source of reference on the standards achieved in Britain in the middle years of the twentieth century.

CHAIRMAN OF THE COUNCIL
OF THE FESTIVAL OF BRITAIN 1951

CHAIRMAN OF THE COUNCIL
OF INDUSTRIAL DESIGN
MEMBER OF THE COUNCIL OF
THE FESTIVAL OF BRITAIN 1951

Ismay.

R.S. Edwards.

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DESIGN IN INDUSTRY

today and tomorrow

by Gordon Russell

DIRECTOR OF THE COUNCIL OF INDUSTRIAL DESIGN

AN AVOWED AIM of the Festival of Britain is to show a high standard of industrial design. How shall we define this? I would say that a well-designed industrial product would be made to serve a particular and useful purpose. It would be designed so that it could be made economically, of good and suitable materials, by normal machine processes and sold through normal trade channels. And further, that whilst the consumer's real needs would be most carefully investigated, his preferences, which might conflict with them, would also be studied. It should give pleasure in use. Design, you will see, is recognised as an integral part of quality, which can no longer be thought of as good workmanship and good material only. In fact, good design should be regarded as one of the consumer's guarantees of quality, for the firm which takes the trouble to design an article with real care and skill will certainly see that it is honestly made.

We are apt to forget how profoundly production by machine has affected the designing of goods and how relatively little experience we have of it as yet. After all, mankind has had many thousands of years to experiment in making things by hand, and less than 200 years to solve the vastly more complicated problems of machine production.

In the early days of hand production — and it is still true of many craftsmen — designer and maker were one and the same person. The finest pots were thrown by one who as a skilled workman fashioned the clay with his hands whilst his artist's eye approved the shape. Later, the architect came in as co-ordinator because there was little link between a whole group of trades, but his drawings were made more especially to show his client than as working drawings. He knew enough of hand-processes to be sure the craftsman could put them into effect, and he left the constructional details to him. But the essence of machine production is that every detail in the working drawings is complete before anything is done. The exact processes of a whole group of highly complex machines must be visualised; comparatively small details can send costs rocketing, and there is sometimes a bewildering range of materials to select from. Things which are impossible if only a thousand articles are wanted, become easy if the order is for fifty thousand. Mass production so spreads costs that high-calibre designers can be employed without appreciably adding to the price.

There is now no logical reason why well-designed things should not be available to all of us.

The 1951 Exhibitions show us how Britain is coping with design for machine production, and also a small amount of our best hand-work, an important stimulus. The Exhibitions will affect every one of us, because such things as cups and saucers, knives and forks, carpets and chairs, filing cabinets and buses, light fittings and cardboard boxes, form the background to our lives. They affect our whole outlook, whether we admit it or not; and if we are critical we have to confess that many of them are downright ugly. Indeed, ugliness has become so usual that its very familiarity recommends it to some people, who like to boast of hard-headedness. So it is very proper at this time that the best we can achieve in normal industrial production should be selected. We can all weigh and compare it. Does it show a better standard than is usual in retail shops? Is it true that there is little demand for well-designed goods in spite of the fact that many more people than formerly appear to be interested in music, ballet and painting? Or would many people prefer to buy better quality goods if manufacturers paid more attention to design, if retailers took more trouble to encourage enterprising makers by showing their goods intelligently and selling them with enthusiasm?

After all, one can hardly expect to get a high standard of design unless there is a critical and appreciative public. It is so much easier to do nothing about it, so long as badly-designed goods continue to sell. But will they continue to sell? Our customers abroad are often more conscious of design than we are. How can we expect to produce a high standard for export unless we have a high standard at home? In these Exhibitions, Britain is stating her belief that design must be taken much more seriously in the future than has been the case in the past. The illustrations in this book will, I hope, make it clear that a tradition in contemporary design is emerging; the standard varies as between one firm and another, and one trade and another, but Britain has every right to be proud of her best — which can hold its own with any other country's.

The firms who find thinking hard work may imagine that the answer is to copy the best. The intelligent ones will see that the real job is to find out the methods by which the best was attained and so place themselves among the leaders, instead of being always a few steps behind. Fortunately the tradition of pioneering is still very much alive in Britain, and I am one of those who believe that we shall see great improvements in design standards over the next few years. And I should not be surprised if the Festival of Britain 1951 proved to have been a decisive influence, when a survey of the situation in AD 2051 comes to be written.



IN THIS LIVING ROOM, the sofa seats three people without giving an impression of bulkiness. The two small tables nest under the large one, and the television set is easily wheeled into the best viewing position. The Venetian blind gives pleasant variations of patterned light. Wall light can be swung to different positions; its character is echoed in the low central pendant

Maloja SETTEE: H. B. Keith, MSIA, for H. K. Furniture Ltd, N7. STRIPED ARMCHAIR: L. R. Ercolani for Walter Skull and Son (1932) Ltd, High Wycombe. ARMCHAIR: L. F. Mathew for E. Kahn and Co Ltd, E15. SEWING CABINET: Arthur Reynolds, Reynolds Woodware Ltd, Ludlow. BOOKCASE: David Joel Ltd, Tolworth. NEST OF TABLES: Kelvin McAvoy for Liberty's, W1

TELEVISION CABINET: Associated Designers Ltd for Murphy Radio Ltd, Welwyn Garden City. PENDANT LIGHT by A. B. Read, RDI, ARCA, FSIA, and WALL LIGHT by Douglas Webb, MSIA, both for Troughton and Young (Lighting) Ltd, SW1

Sherwood FIREPLACE: Broad and Co Ltd, W2. *Fulham* GRATE: Eagle Range and Grate Co Ltd, Leeds

Runnymede CARPET: Carpet Trades Ltd, Kidderminster. CUT PILE RUG: Alastair Morton, FSIA, Ambleside (lent by Crafts Centre of Great Britain, W1)

CURTAINS by Story's (illustrated in colour on p. 25). *Airflex* Sunuminium VENETIAN BLINDS: J. Avery and Co, W1. WALLPAPER: Cole and Son (Wallpapers) Ltd, W1

PICTURE AND FRAME: Medici Society Ltd, W1. CLOCK: Scott-Ashford Associates for Thomas Mercer Ltd, St. Albans. LUSTRE MUGS by Keith Murray, RDI (decoration by Millicent Taplin), and *Pimpernel* CIGARETTE BOX by Victor Skellern, ARCA, both for Wedgwood. SEWING BASKET: Dryad Handicrafts, WC1. TRAY: Gaby Schreiber, FSIA, for Runcolite Ltd, W1. DECANTER AND GLASSES by the late Barnaby Powell, ASHTRAYS by William J. Wilson, MSIA, and VASE, all for James Powell and Sons (Whitefriars) Ltd. FRUIT BOWL: Lucie Rie, W2

OPPOSITE: SIDEBOARD from the *Cumbræ* range designed by Neil Morris and made by H. Morris and Co Ltd, Glasgow; and a contemporary version of the late seventeenth-century WING ARMCHAIR designed and made by Ernest Race Ltd, SW4

The furnished rooms illustrated on this and subsequent pages were specially arranged and photographed for this book, and are not shown in the Festival Exhibitions

Furniture Design in Britain

by John Gloag

FURNITURE DESIGNED AND MADE in Britain today preserves continuity with tradition, not in form or ornamentation, but by the way British designers tackle problems and use materials. It may be classified under three broad headings:

- 1 Furniture made in small workshops, largely by hand, by artist-craftsmen.
- 2 Furniture produced in factories by manufacturers, who retain, generally as consultants, competent industrial designers.
- 3 Furniture produced in factories by manufacturers who copy, adapt, or merely caricature traditional or contemporary styles and models.

The work of the first group, the artist-craftsmen, employs traditional materials and methods for furniture making, and it represents research work in design, which, after the time-lag of a few years, indirectly influences the work of the furniture trade. The work of artist-craftsmen also affects the outlook of industrial designers, some of whom are themselves executant craftsmen.

From the second group, which represents effective collaboration between industrial designers and progressive manufacturers, a recognisable style is emerging, that demonstrates by the way various woods and other materials are handled, that the inspiration of the golden age of eighteenth-century cabinet-making still has the breath of life. Produced

by wholly different methods, catering for needs more modest than those of our Georgian and Victorian predecessors, and for rooms far smaller than theirs, modern domestic furniture is designed to give more than bodily comfort and convenient accommodation. Utility alone is not enough: every able designer knows that ornament is an old human need, and knows too that it is not properly satisfied by reproducing mechanically the ornamental motifs used on the hand-made furniture of former ages. The contemporary industrial designer uses the characteristic colour and marking of wood to the best decorative advantage, employing appositely such materials as light alloys and plastics; and with upholstered furniture he has discarded the corpulent, wallowing chairs and settees of the nineteen-thirties, and has revived and found new uses for such devices as buttoned upholstery.

The traditional approach to the use of materials in Britain, and particularly in England, has been to coax them into the shapes best suited to their character: never to bully them. Now, with an infinity of ductile and malleable materials available, the industrial designer has resisted both extravagance and oversimplification. During the war, when materials and plant and labour were rationed, the problem of designing utility furniture supplied a challenge which stimulated the ideas of designers, and the original





Utility scheme set a high standard. Quite naturally there was a reaction from the austerity associated with utility models; and many manufacturers, whose work comes into the third group, have, since it was possible to return to freedom of design within the Utility scheme, also returned to many of the repellent extravagances of the nineteen-thirties—a retrogressive step that is encouraged by many retailers who believe well-designed articles are unlikely to sell.

Acting upon the assumption that neither Queen Anne, Chippendale, Hepplewhite nor Sheraton is dead, manufacturers of this third group are responsible for innumerable parodies of antique furniture. Such inept borrowing still affects a large proportion of the output of the furniture industry; but the practice does not affect contemporary design, as the illustrations to this section variously prove.

DINING TROLLEY with metal tray in centre shelf for putting used cutlery straight into the sink. Designed by Frank Austin, MSIA, and made by Wylie and Lochhead Ltd, Glasgow



THE DINING END OF A LIVING ROOM (left)

Unad SIDEBOARD, TABLES AND BOOKCASE in black bean and cherry; ARMCHAIR; Hepple SINGLE CHAIRS: all by Story Design Group for Story and Co Ltd, W8. Ambassador RADIOGRAM: R. N. Fitton Ltd, Brighouse. PENDANT LIGHT: Oswald Hollmann, Beckenham. TABLE LAMP: Lucie Rie, W2. SHADE: W. J. Bingham, NW6. Santiago CURTAINS: Ann O. Todd for A. and J. Finch Ltd, Bradford. SPOTTED VOILE: J. H. Birtwhistle and Co Ltd, Manchester. WALLPAPER: Cole's. FRAMED PRINT: Ganymed Press London Ltd, WC1. CHINOISERIE FIGURE: Worcester Royal Porcelain Co Ltd. Wedgwood Pimpernel COFFEE SET by Victor Skellern, ARCA

DINING CHAIR, available in beech or oak: the Freydm design by Edwin Clinch and Geoffrey Dunn, made by Goodearl Bros Ltd, High Wycombe



ONE ARRANGEMENT of versatile units from Scottish Furniture Manufacturers Ltd. Stools (with adjustable brass feet to provide level base on uneven floors) made by Joseph Johnstone Ltd, Lochwinnoch; other units by H. Morris and Co Ltd. Designed by R. D. Russell, RDI, FSIA, and R. Y. Goodden, RDI, ARIBA, FSIA

OCCASIONAL TABLE with tray top and slatted lower shelf designed by Henry Long and made in Rauli and birch by Heal's, W1



MORE PIECES from Scottish Furniture Manufacturers Ltd. Hanging bookcase (with sliding 'pin-up' panel of linoleum) designed by Jacques Groag, DIP ING ARCH, FSIA, and made by Andrew Thomas and Sons Ltd, Glasgow. Beech table designed by R. D. Russell and R. Y. Goodden, made by Joseph Johnstone Ltd. Fireside chair with beech frame designed by Jacques Groag, made by Francis East Ltd, Dundee





ROCKING CHAIRS—new and traditional, the one using a new technique and a new material for the frame: steel rod, electrically welded and with stove-enamel finish. Padded seat and back cushion; wooden arm-rests. Ernest Race Ltd, SW4



THE OTHER, a contemporary version of a late eighteenth-century ladder-back rocker: hand-made from elm, ash or oak and hand finished with wax polish. Seagrass seat. Robin and Dicon Nance, St Ives



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The bed-sitting room for the bachelor girl

BED-SITTING ROOM where the writing desk acts as a small dining table, and a pair of wardrobes provide ample storage space. The wall light may be extended to serve the dressing table as well as the bed. MATCHING UNIT FURNITURE in elm and mahogany: R. Y. Goodden, RDI, ARIBA, FSIA, and R. D. Russell, RDI, FSIA, for Scottish Co-operative Wholesale Society Ltd, Glasgow. *Ardale* WING CHAIR: Lawrence Reason for A. Reason and Sons Ltd, SE13. Ferguson portable RADIO: Peter Bell, MSIA, for Thorn Electrical Industries Ltd, WC1. *Versalite* WALL LIGHT: A. B. Read, RDI, ARCA, FSIA, for Troughton and Young (Lighting) Ltd, SW1. DESK LAMP and shade: Vera Huggins, for Doulton and Co Ltd, SE1. TABLE LAMP: R. A.

Chick, Chigwell; shade by Henceforth, St. Leonards-on-Sea. CONVECTOR HEATER: Wells Coates, OBE, RDI, FRIBA, for E. K. Cole Ltd. *Prestbury* CURTAINS: Marianne Straub, FSIA, for Warner and Sons Ltd, W1. *Clarkia* COTTON CURTAINS: John Clarke (through Horrockses Crewdson and Co Ltd, Preston). *Rosemount* BEDCOVER AND PILLOW CASES: Donald Bros Ltd, Almacia. CARPET: H. I. Thorp, for Brintons Ltd, Kidderminster. *Atlantis* WALLPAPER: John Line and Sons Ltd, W1. DESK SET AND PHOTOGRAPH FRAME: Jarrold and Sons Ltd, WC1. PICTURE AND FRAME: School Prints Ltd, SW1. MIRROR: The Rowley Gallery Ltd, W14. Wedgwood *Queensware* VASE. ASHTRAY: Leeds Fireclay Co Ltd

OPPOSITE: This group of hand-made furniture shows craftsmanship at its best. HAND-MADE SEWING TABLE: Neville Ward and Frank Austin; TABLE, STOOL AND STANDARD LAMP: Nigel Walters — all for Primavera, SW1. ARMCHAIR: L. F.

Matthew, for E. Kahn and Co Ltd, E15. CANE SCREEN: G. W. Scott and Sons Ltd, WC2. SEWING MACHINE: Tailor Bird Sewing Machine Co Ltd, Sandwich. CURTAINS: Liberty's, W1. WALLPAPER: Arthur Sanderson and Sons Ltd, W1



BREAKFAST IN BED becomes really comfortable with this trolley. Specially designed to go between twin beds, its two trays (finished in Formica) slide in when not required. Designed by E. H. Pinto and made in Californian eucalyptus and aluminium by Compactom Ltd, NW2



A COMBINED bed head and bedside table. Here, a right-hand and left-hand model of the *Unad* bed head are placed together and give the impression of a single fitment. Designed by the Story Design Group and made in black-bean and cherry by Story and Co Ltd, W8

Furniture for the bedroom

WOOD, METAL AND PLASTIC are well combined in this dressing table. The carcass is plywood veneered in English walnut and rests on a stand of natural beech. The drawers are of a light-alloy extrusion faced on the fronts with grey Vynide; and the table top and the well back are covered in a cream laminated plastic. E. L. Clinch, MSIA, for Goodcarl Bros Ltd, High Wycombe



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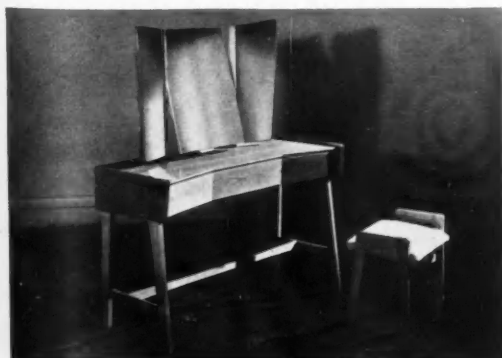


THE FIGURING OF THE WOOD supplies the decorative interest in this four-piece bedroom suite. The wood illustrated is Australian walnut, but the same design is also made in

A FRESH FORM in contemporary design arises from keeping the drawer-fronts smooth. Handles are replaced by a grip below, so that the figuring is uninterrupted. The lines of the stool are complementary to those of the larger piece. Designed by Frank Austin, MSIA, and Neville Ward, B Arch, ARIBA, MSIA, and made in Continental cherry wood and obechi by Wylie and Lochhead Ltd, Glasgow

mahogany and oak with various finishes. Designed by Christopher Heal, MSIA, and made by Heal and Son Ltd, WI

HERE AGAIN THE CHARACTER of the wood is shown to advantage, the surface detail being confined to shallow cupped circular handles, while the door and drawer panels are framed by rounded beading. The base of chest and wardrobe is recessed to give toe-room and the dressing-table is set on a raised plinth to allow for easy cleaning. Designed by A. Loebenstein, MSIA, made by D. Meredew Ltd



THE EASY-TO-MOVE CHALKBOARD has a reversible board which is held rigid by a spring-loaded plunger. The frame is made of tubular steel and the chalk and dust tray of mahogany. Designed by Oliver Cox, ARIBA, and manufactured by Geo. M. Hammer and Co Ltd, N4

THE STACKING PRINCIPLE is accepted for places where chairs are used in quantity. Its use at home is less widely realised. Suitable for nursery school or nursery are the laminated chairs below which are made in six different sizes by disabled servicemen. Designed by J. Douglas A. Boyd for Rempoy Ltd, SW1



THE WATER TROLLEY consists of a steel-tube framework holding a tank of formed aluminium sheeting. There are castors on two of the legs so that the whole can be tilted and wheeled about. The tank has a turned-in lip to reduce splash, and the plug unscrews from below to avoid unintentional emptying. Designed and made by the Educational Supply Association Ltd, WC1



THESE FLOOR BUILDING BLOCKS consist of simple shapes which can be used in many ways. They are made of hardwood and plywood with sanded finish and are tough enough to withstand the hardest play. They are sold in sets of various sizes and priced so that a large collection can be gradually assembled. Designed by Nancy Catford and made specially for the Educational Supply Association Ltd



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Nursery for two children

DAY AND NIGHT NURSERIES are here combined. The bright colour scheme is a change from the pastel shades of most nurseries. The cupboards are faced with a plastic material which is burn-, stain- and scratch-proof. The two-tier bunk saves space; it has a hinged safety flap for the top berth. The elephant rug is washable, and, being soft, is very suitable for children of crawling age. The electric heater can be left on while children are alone, without fear of accidents; in hot weather it can be used to provide cooled air. The rocking horse and teddy bear suggest that though nursery furnishings may change, some traditional toys remain

METAL DOUBLE BUNK: L. J. Thoday for Heal's. UNIT WARDROBE: Neville Ward, B ARCH, ARIBA, and Frank Austin, MSIA, for H. and A. G. Alexander and Co Ltd, Rutherglen (SFM Ltd). TOY CUPBOARD: George M. Hammer and Co Ltd, N4. TABLE, CHAIR AND WOODEN TOYS: Stanley Noble, Danbury, Essex. ROCKING HORSE: D. S. Jarvis for Patterson Edwards Ltd, SE13. SAFETY HEATER: Delaney Gallay Ltd, NW2. FRAMED PICTURE: Paul and Marjorie Abbott Ltd, W1. GLAZED CHINTZ CURTAINS: A. and J. Finch Ltd, Bradford. WASHABLE COTTON LONG-PILE RUG: Enid Marx, RDI, FSIA, for Morton Sundour Fabrics Ltd, Carlisle. ARDBERG BED-COVERS: Donald Bros Ltd, Dundee. LINOLEUM: through Linoleum and Floor Cloth Manufacturers' Association, EC4. PARIAN PAINT for walls

Office equipment

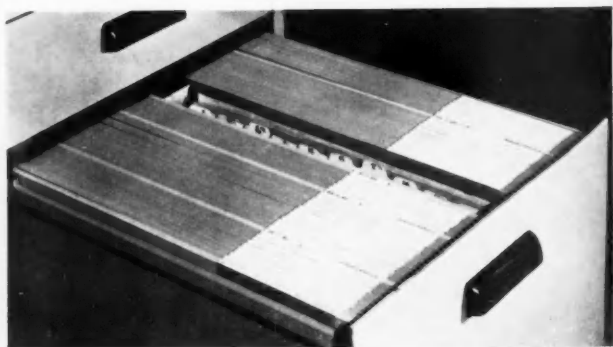
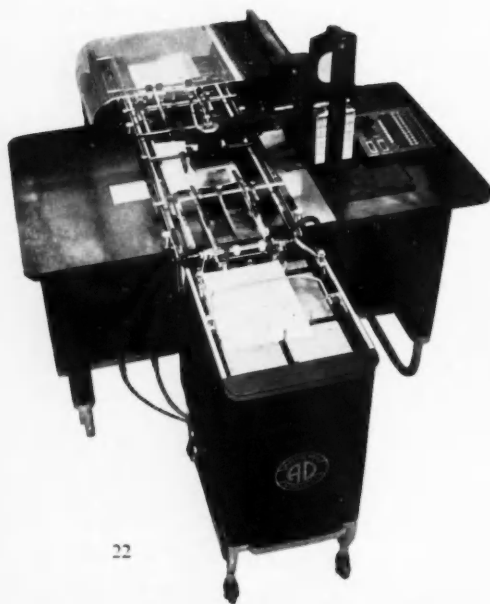
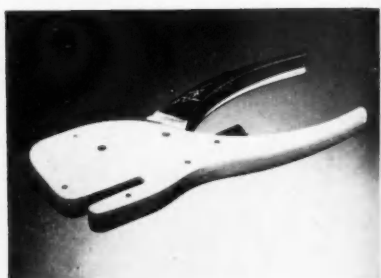


GOOD DESIGN in industry demands team-work. The high standard achieved in recent Roneo products may be attributed to the influence of the firm's Design Panel, comprising an architect and industrial designer (Frederick Gibberd, FRIBA, FSIA), an advertising consultant (T. Booth Waddicor) and Roneo's own Development and Technical Committees

THE '500' DUPLICATOR, right, and the unit furniture on left both reflect the work of the Panel. In the duplicator, a complex mechanism has been tidily housed with all controls placed and shaped for convenient operation. The bookcase consists of two units from a comprehensive range of office furniture. All are available in a variety of colours: black and drab green need no longer be accepted as inevitable in offices. The coldness of steel to the touch is avoided, as table-height surfaces have a special finish—linoleum edged with plastic binding

TRIM APPEARANCE is equally important in smaller office accessories. The *Velos* plier stapler, by Rees Pitchford and Co Ltd, SW1, has been designed with regard for both use and appearance

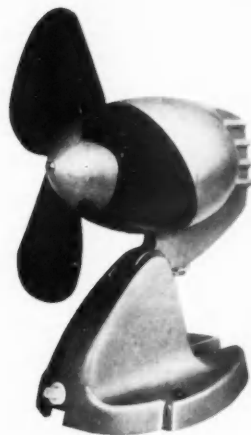
THE COMPLEX SHAPE of the *Bradmaster* machine, made by Adrema Ltd, W3, is due to its complex functions. It is intended for use in direct-mail advertising, and consists of three units—duplicator, addressing machine, and suction-feed attachment. Together they make possible the quantity-production of sales letters incorporating personal names and addresses



THIS FITTED BOTTOM DRAWER in a Roneo desk pedestal unit shows that attention to detail which is essential to good design. Files are arranged sideways for easy reference as one sits at work



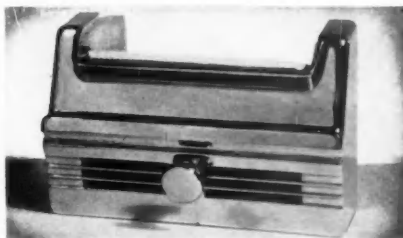
For heating —and cooling



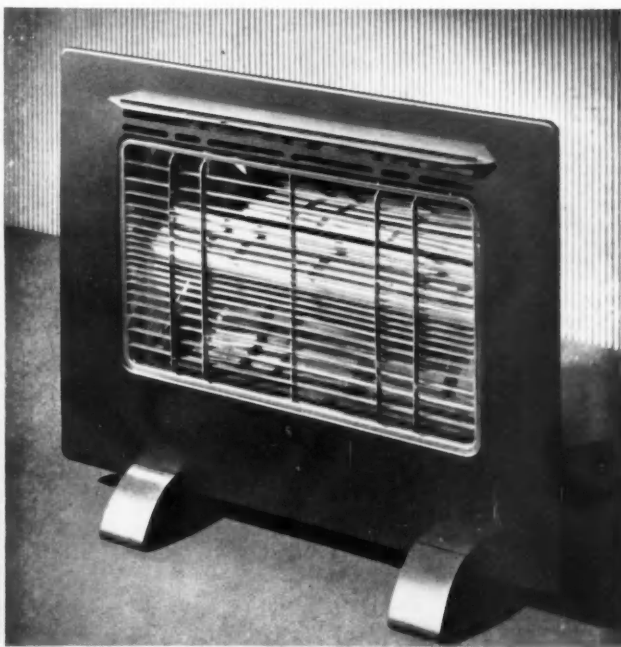
RUBBER BLADES in this electric fan avoid the need for the protective wire cage which is essential with metal blades. Made by the General Electric Co Ltd, and designed by Leslie J. Roberts of their Industrial Design Section

WITH THE Janitor *Cokette* boiler, gravity feed from the coke hopper and thermostatic control together reduce the attention required to a minimum. Design for easy maintenance is carried through to the housing, where flush enamelled surfaces make cleaning simple. Designer, G. A. Ridgley

THE AB, right, is a slow-burning hearth designed to fit into an ordinary grate. An air-control regulator enables it to keep alight all night. Designed by Norman Rissen, MSIA, for Federated Sales Ltd



BRATT COLBRAN'S *Barton* portable gas fire has bar radiants of a new type which is practically indestructible. The shaped front is pressed from one sheet of steel and stove-enamelled in a variety of colours



ORGANISATIONS CONCERNED with safety in the home have for some years been demanding safer electric fires. The new Ferranti *Safera*, shown here, contains a mercury switch which automatically cuts off the current if the fire is knocked over, lifted by the handle, or even tilted. The element is guarded by the grille and by a curved shield

More pattern and colour in the home

by *Antony Hunt*, Editor of *HOUSE & GARDEN**

PROBABLY THE TRUEST GUIDES to the furnishing styles and taste of any decade are its fabrics, wallpapers and lamps — for these change more quickly than does the furniture.

In the last ten years, considerable changes have taken place in the design of all three, but in each case the change is of a rather different order. In fabrics, the contemporary movement has, on the whole, swung away from architectural and abstract influences, and 'modern' fabrics have almost become 'period'. The new wallpapers are more closely or heavily patterned and more deeply coloured. With table and standard lamps, progress at first sight appears to have been greater than with fabrics or wallpapers, but this is because lamps had more leeway to make up, having postponed until now the advance made by fabrics in 1935-40; the new forms have an unmistakably architectural look.

There are still far too few good contemporary fabrics, wallpapers or lamps. But the best are now more nearly expressive of the same thought, and therefore combine well together. They have refined and matured enough to go with good furniture of earlier periods as well as their own.

Fabrics

Progress in the design of woven fabrics has greatly decelerated since 1940. The exciting developments which had still to reach their peak when war broke out have not been carried further. Instead, a pleasant but less progressive influence has short-sightedly resulted from the seller's market — obviously the safest time to experiment. Severer, abstract, designs have disappeared from prints; more whimsical ones now generally replace them. Squares have become less square, and circles have been replaced by ovals or rounded lozenge shapes. Colours are less contrasting and generally fewer per design.

But the most depressing influence in fabric design to-day is a decline in the variety of textures — the strongest and most interesting aspect of the best pre-war ranges. Few tuffles, gimps, slubs or other yarns that give the frosty, knobbly, flaky and other interesting textured surfaces that we saw in 1939, are now available to tax weavers' and designers' skill.

Floral designs, owing much to the earlier, more robust patterns by Hilderbrandt, Paule Marrot and

Marion Dorn, have settled down into a less vigorous set of motifs than their predecessors.

Wallpapers

The changes in design of contemporary fabrics in the past two decades have rarely been echoed in wallpapers. Where, for instance, are the wallpaper designs comparable with the pioneer fabrics designed more than ten years ago by Ben Nicholson, Paule Marrot, Marion Dorn, Hans Tisdall, Ashley Havinden, and others?

More progressive makers, however, realise the value of employing artists of this calibre to design a smaller range, additional to their bulk range, for prestige reasons and also to keep their own design staff alert.

Apart from these all too occasional designs from outside sources, small diapers, spots, and tartans are now superseding a long run of stripes. Some of these are on the new, more decorative, strongly coloured grounds, such as persimmon, Antwerp blue, Chinese yellow.

Stronger colours have also brought back flock wallpapers; brilliant carmines, yellows and greens have broken out on formerly pastel or tired beige walls. It would be stimulating to see some contemporary motifs in these flocks, instead of the long-suffering ever-rampant acanthus.

Lamps

Only in the last year has a range of very interesting new designs appeared from several makers. Many of them are architect-designed, and have gained from being so. Mainly, metal is used, with very slender, curved lines. Shades are quite simple — obviously a protest against the be-frilled, be-tasselled and be-ribboned horrors which still bulge their puffy forms over too many English rooms.

Of the new designs, some are too insect-like; for even an efficient and elegant lamp begins to pall when one cannot disguise from oneself that it looks like a praying mantis. But lamp designers, on the whole, have preserved a new-found conscience; they have taken the trouble to understand the lighting problems of the householder and contrived that some of their lamps should look well even amid designs from the golden age of hand-made English furniture — a tribute to their purity of line.

* Published monthly by the Condé Nast Publications

1 COUNTRY POSY, a Heal's printed linen, designed by Sylvia Priestley, MSIA

2 QUEEN ELIZABETH, designed and woven (in a wool and cotton mixture) by Tibor Ltd, Stratford-on-Avon

3 KIMMERIDGE, a jacquard-woven rayon for curtains or fine upholstery by Warner and Sons Ltd, Braintree

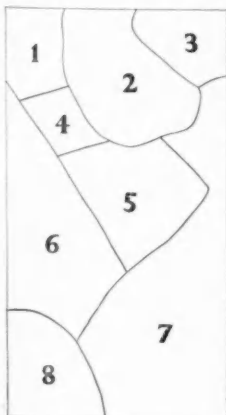
4 WINGED HORSE, designed and made by Henry Nathan and Co, WI

5 NEPTUNE, a screen print on satin in fast pigment dyes designed by F. C. Rice for Story and Co Ltd — seen also in the room setting on p. 12

6 HELICON, a reversible jacquard-woven design by Marian Mahler, MSIA, for Edinburgh Weavers, Carlisle

7 A printed linen from Liberty's

8 Hand-woven in cotton and wool by Hilary Bourne and Barbara Allen, NW1





More fabrics . . .

FOAM-WOVEN cloth, above, in rayon and undyed cotton gives a friendly and interesting texture for upholstery. Designed and made by Donald Bros Ltd, Dundee

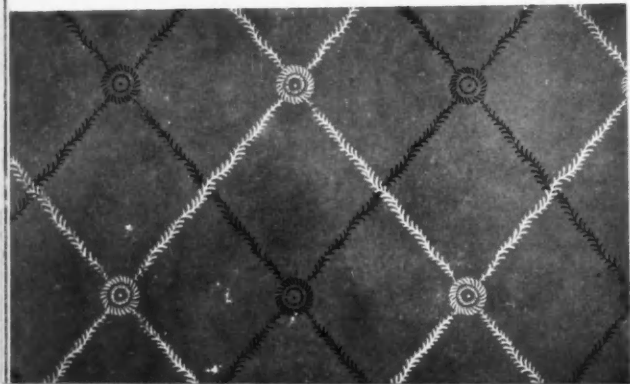
'JACOBAN TREE', above left, avoids the heaviness of many modern treatments of this traditional theme. It was designed by A. Young and is screen-printed in red, brown, green and yellow by Gayonnes Ltd, W1

THE PRINTED COTTON illustrated in colour is the new *Spring* design by Enid Marx, RDI, FSIA. It is interesting to compare her treatment with Margaret Simeon's of the same theme in the *Spring Flowers* wallpaper illustrated opposite. Made by Morton Sundour Fabrics Ltd, Carlisle

. . . and wallpapers

DISCREET FORMALISM characterises the trellis effect from Sandersons, below left. This paper is hand-printed in brown and off-white on a matt oyster-coloured ground

IN CONTRASTING STYLE is *The Valentine*, an Edwardian conversation piece with a modern treatment by C. N. Cameron, machine-printed by Shand Kydd Ltd, NW5. It represents a trend, now well established in America, away from formalism towards patterns which Mary Delane has described as "no less uncompromising than American ties". With bold pattern comes strong colour: this design is available with grounds of olive green, wine red or strong blue as well as more neutral tones



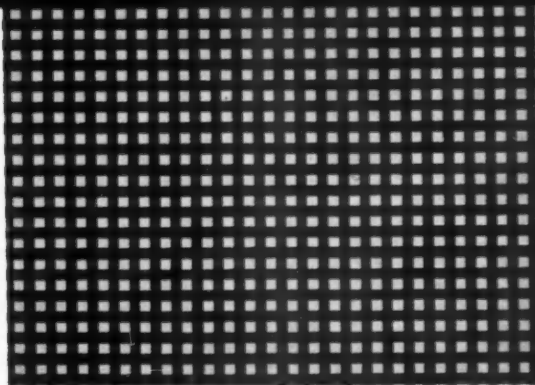
Six more wallpapers

1 One of five colourings in which John Line and Sons Ltd produce Harry Skeen's *Crossley* design

2 Abstract shapes produce an effect reminiscent of the texture of granite in this design by Graham Sutherland. It is hand-printed in white on grounded paper by Cole and Son (Wallpapers) Ltd, W1

3 *Spring Flowers* has all the freshness of its name. It is a design by Margaret Simeon, MSIA, machine-printed (on white) by Wall Paper Manufacturers Ltd

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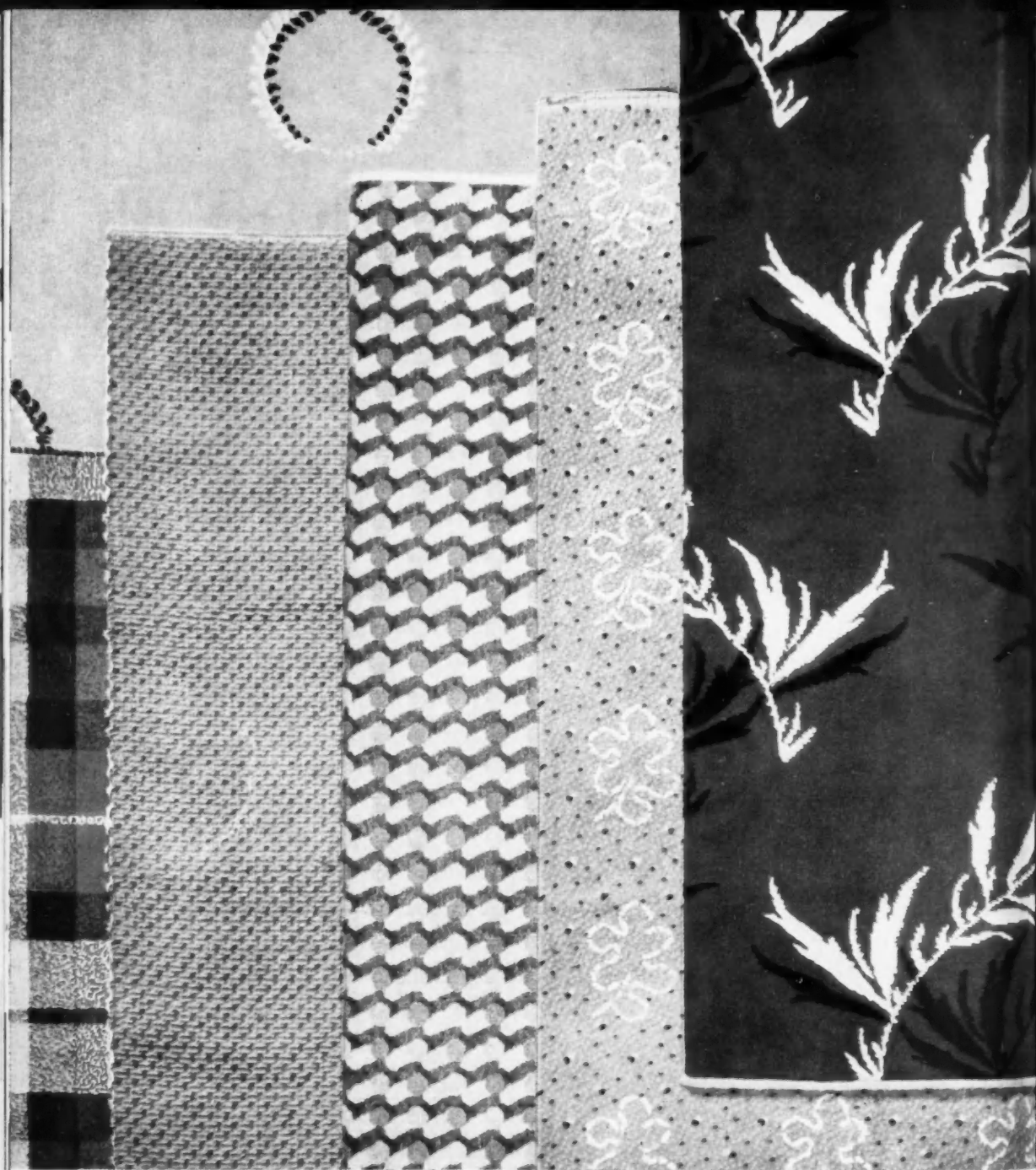
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4 *Egyptian Phantasy*, like *Spring Flowers*, is a new WPM paper for the American market. In it Peter Shuttleworth has treated nursery motifs in a stencil-like style

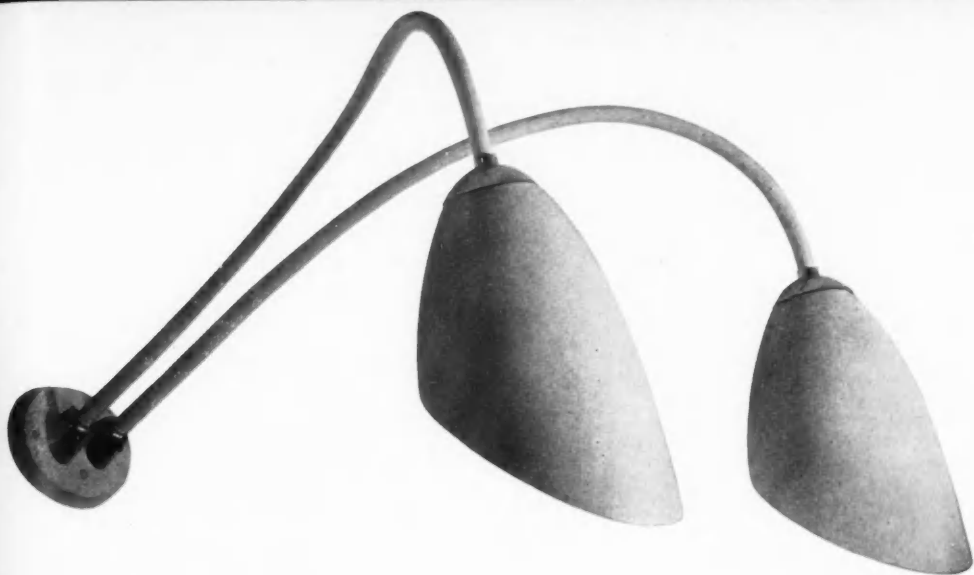
5 *Bermuda*, with its seashore motifs, is produced in two versions: light on a dark ground, as illustrated, and dark on light ground; the two can be paired in one room. Designed by Mary Storr, hand-printed by Line's

6 Native art inspired the *Mexico* pattern. Illustrated here in light colours, it is also produced in maroon and blue. Designed by Armfield-Passano, hand-printed by Line's



NEW IDEAS IN CARPET DESIGN: THE gold-coloured carpeting with wreath motif, top left, is made by A. F. Stoddard and Co Ltd of Elderslie, Johnstone, Scotland. The other designs are, left to right: Buchanan tartan — one of a series of tartan patterns by James Templeton and Co Ltd, Glasgow: *Ripple*, a Wilton carpet by Brintons Ltd, Kidderminster (the weave, using two different heights of pile, gives

the effects of solid colour and a ripple texture): *Kingstoway*, another Wilton, made by John Crossley and Sons Ltd, Halifax, exclusively for John Lewis and Co Ltd: *Axbury*, a BMK mothproof by Blackwood, Morton and Sons Ltd, Kilmarnock: and an Axminster carpet designed by J. Huskinson, made by Woodward, Grosvenor and Co Ltd, Kidderminster



LIGHT FITTINGS — direct and indirect

THE 'TEEANEE' PAIR, above, was designed by the Story Design Group for illuminating fabric drapes, notice boards or other wall displays. It is finished in milk-white cellulose with chromium-plated bosses. Made by Tucker and Edgar, NW1

THE TERRY 'ANGLEPOISE' was one of the first infinitely adjustable lamps in Britain. Of proved efficiency for concentrating a beam of light just where required, it is now widely used in the home as well as factories and drawing-offices. Designed by G. Carwardine

IN CONTRAST, this Best and Lloyd aluminium wall-bracket is designed for indirect lighting. Its simple forms are the logical outcome of the techniques employed: casting for the bracket and spinning for the reflector





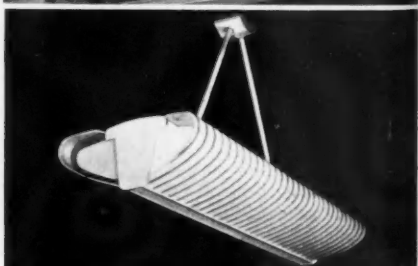
THE CHANDELIER uses brass finished in contrasting textures — ribbed on the brackets, smooth elsewhere. The *Hilite* shades, which conceal the bulb completely from the eye, are of pleated buckram. Designed and made by Oswald Hollman, Beckenham

THE UPPER FLUORESCENT FITTING, right, is specially designed for illuminating pictures. This view shows the back of the reflector, which holds a 5-foot tube. Designed by Noel Villeneuve for Heffer and Co Ltd, SW7

THE LOWER FITTING, with striped Perspex side-screens, explores the decorative possibilities of this type of lighting. Designers, Neville Ward, B ARCH, ARIBA, MSIA, and Frank Austin, MSIA; manufacturers, Siemens Electric Lamps and Supplies Ltd

ALL WOOD: lamp, below, uses the *Bottle* base designed by B. Chick for Primavera, SW1, in turned sapele mahogany. The shade is made of wood veneer by a special process by Henceforth, St Leonards-on-Sea

THE 'DECORLUME' table lamp has a tapered shade of anodised aluminium above a tapered stem. The bulb is shielded by an opal glass diffuser. Designed by Paul Boissevain, DIP ARCH, MSIA, for Merchant Adventurers, W11



Domestic appliances

by *Phyllis L. Garbutt*, Principal of Good Housekeeping Institute

DOMESTIC EQUIPMENT manufactured by the more enlightened and progressive British manufacturers of today reflects an ever-increasing trend towards the ideals of better design and greater working efficiency. When consumer knowledge increases still further, the minority of less satisfactory appliances will be reduced to a negligible quantity.

Since the war, the Council of Industrial Design has played a valuable part in drawing attention, through exhibitions, conferences and in other ways, to the application of good design to household appliances. This has helped materially to awaken public interest and form an educated and knowledgeable public opinion. The influence of other countries (notably America and Sweden) has also had its effect, although production in this country is not and never has been merely copyist. Ideas and manufacturing practices have been adapted in the light of independent research. Streamlining has been modified.

The complete lack of domestic labour in the majority of homes in this country is, perhaps, the most important single factor which has increased public interest and awareness of the importance of sound domestic appliances. Many women's organisations have taken up the cudgels and made vocal demands for improved equipment. The significance of this matter has been fully recognised, too, by official and semi-official bodies and specialist councils and committees concerned with such basic things as coal, gas and electricity — which have put in hand a

vast number of consumer and technical investigations bearing on various aspects of domestic appliance design. The British Standards Institution has drawn up standards for a large number of items of equipment.

Moreover, the trained designer has come into the picture to a far greater extent than before the war. The result has been improvement not only in outward appearance, but also in construction. This, in many cases, has gone through a process of simplification, giving greater all-round efficiency. Side by side with this (and closely associated with practical questions of convenience in use) hard, easy-to-clean, durable surface finishes have emerged as a result of long-continued research.

As regards the practical consumer angle, Good Housekeeping Institute has made valuable contributions by testing and examining domestic appliances over a period of 25 years. As a result of these usage tests made under controlled conditions, detailed recommendations are constantly being made to manufacturers with a view to improving the standard of their products; these recommendations are almost without exception put into effect — indeed, the Seal of Guarantee is withheld otherwise.

These and other developments, added to the manufacturer's own increasing technical knowledge, have all played their part in the high standard of British domestic equipment as reflected in pages 32-35 of this book and in the Festival exhibitions.

OVENWARE which is suitable for use at table saves storage space and washing-up. These examples are Denby earthenware





Design in the kitchen

THE STORAGE CUPBOARDS above have working-height tops of buff Formica plastic, and recessed plinths to give toe-room while standing. Washable upholstery on the stool matches their red plastic handles

THE KITCHEN AS A WHOLE was planned and furnished for demonstration purposes by the North Thames Gas Board at their showrooms. Out of sight are a sink, a tall broom-cupboard, dresser with additional table space over a low refrigerator, and a drying cabinet. A movable washing machine is placed in a recess near the sink and a sliding pulley holds kitchen cloths

THE LARGER EQUIPMENT consists of—Cupboard fittings: Redwing Ltd, Croydon. Water heater (in corner) and double-oven cooker: Radiation. Gas washing machine: W. H. Dean and Son Ltd, Burnley. Waste-bin: Staines

Kitchen Equipment Co Ltd, SW1. Stool: H. C. Shepherd and Co Ltd, W1. Curtains: Edinburgh Weavers

THE SMALLER EQUIPMENT includes—*Bummy* whisk: Leonard Robson Ltd, Berkhamsted. *Pedigree* kitchen knives: Thomas Turner (Cutlery, Sheffield) Ltd. *Cornishware* rolling pin, bowls and storage jars: T. G. Green and Co Ltd, Burton-on-Trent. *Mary Anne* electric food mixer. Scales: John Harper and Co Ltd, Willenhall. *Daleware* saucepans. *Mirrorware* colander. Sieve: Taylor, Law and Co Ltd, Stourbridge. *Denby* casseroles. Spice rack and jars: Willet and Robinson Ltd, Maidstone. *Phoenix* glass mixing bowl. Mincer: Spong and Co Ltd, N15. Water jug and tumblers: United Glass Bottle Manufacturers Ltd (through Johnsen and Jorgensen Flint Glass Ltd, EC4). Vitrified stoneware teapot, cups and saucers: Dudson Bros Ltd, Hanley



THIS TABLE-MODEL gas cooker, the *Junior General*, includes burner, grill and oven. Before they can be turned on, the safety taps must be pushed in

THE CRED A *Comet D 2* electric cooker, of a shape more familiar in America than in Britain, was designed to meet the needs and tastes of housewives both in this country and overseas. It combines large capacity with compactness: only 15 inches wider than the usual type, it includes three boiling plates, generously spaced for maximum use, and an extra-large oven, with big grill chamber and ample plate-warming drawer alongside and cupboard space below. All the controls are grouped along the top to avoid stooping



THE HOOVER electric washing machine makes little demand on useful space in the kitchen—it is small enough to fit beneath the average draining board. There is a hand-wringer with soft rubber rollers which swings out for use

THE MODERN solid-fuel cooker is a far cry from the old cast-iron range in appearance and in efficient use of fuel. The *Yorkseal*, by Wilsons and Mathiesons Ltd, Leeds, burns coal or coke and provides oven and water-heating facilities, as well as an open-closed fire





GOOD DESIGNS, even in electrical equipment, are not so quickly outmoded as we sometimes think. The Morphy-Richards iron, above, was introduced in 1938; within a year it was being made at the rate of 1,000 a day. In 1951 it is still in production — and the rate is now 3,000 a day

THE JUG AND BUCKET, developed from hospital equipment, are from the *Elizabeth Ann* range in stainless steel by Andrews Bros (Bristol) Ltd, Weston-super-Mare

THE COLANDER is a one-piece plastic moulding, available in various colours. Designed by Gaby Schreiber, FSIA, for Runcolite Ltd



MINCING AND SHREDDING is only part of the work which the electric-driven Lammix does. Mixing is its other purpose; it works on a new principle, in that the bowl revolves. At the 1950 Chicago Trade Fair, the Lammix was introduced to the US market by its makers, Huwood Components Ltd. Designer, Harold T. Lamb



AN EXCEPTIONAL EXAMPLE of modern design applied to non-electric irons is the Aga (left) designed for use with the Aga cooker. It is supplied with two chromium-finished sole-plates so that one can be heated while the other is in use. The simple device which locks cover to sole-plate is operated by the control on the front of the iron, which, like the handle, is made in plastics for heat insulation. Designer, R. G. Elliot

For the bathroom

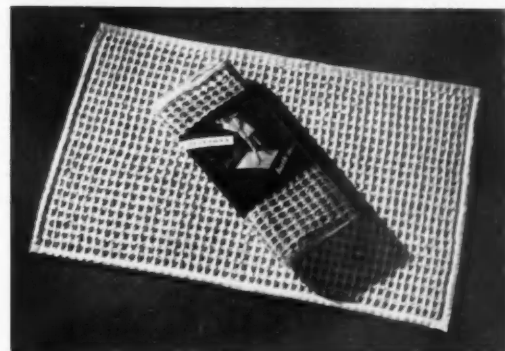
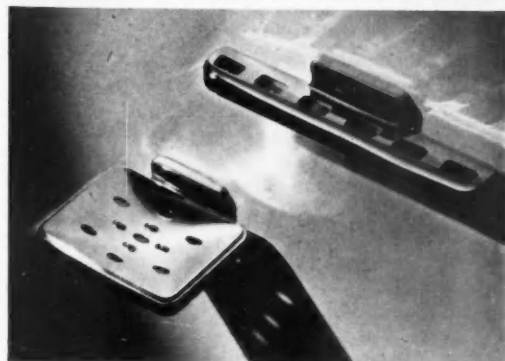
FLUSHING CISTERN: noteworthy not only for its tidy appearance but also for its material — Duranite, a pitch-based plastic which is non-corrosive, non-resonant and frost-resisting. The Shires *Lynx*, designed by Allen-Bowden Ltd

THE TOWEL is the new *Century* design introduced by W. M. Christy and Sons Ltd, Manchester, to mark the centenary of the firm. Jacquard-woven, it has multi-coloured circles on a gold background

THE TOWEL RAIL, and the toothbrush holder and soap dish below it are unusually neat; the fixing is concealed. From the *Masque* range designed by Scott-Ashford Associates and made by W. C. Youngman Ltd, SW8

THE VANTONA 'WAFFLE' bath-mat is woven in a honeycomb texture which makes for maximum absorbency and rapid drying. It is one of the growing number of textile products to be packaged attractively — with a printed label over-wrapped in transparent film

WATER-HEATER for use where there is no main gas supply: the Ascot 701 is the first British design to earn the certificate of the American Gas Association, an essential condition of selling in the USA. It is instantaneous in action, will supply all the hot taps in a house, and operates on bottled gas



The tools of the table

by Bernard Hollowood

THE INDUSTRIES WHICH supply the more permanent accoutrements of the table have been so heavily engaged in the export drive since the war, that customers at home have had little opportunity of making a first-hand assessment of their progress in design.

Except for the odd 'export reject' and, more recently, the so-called 'frustrated export', we have seen only the plainest undecorated products of the potworks. All new designs have been prepared primarily for markets overseas, particularly for North America: the potters have been unable to apply themselves directly to the problem of satisfying the home market.

Restrictions and shortages of men and materials have not, on balance, proved harmful to design. They have stimulated experiment with new methods of production and decoration, and the designer has been encouraged to tackle particular and specialised markets instead of working speculatively to meet the vague, amorphous needs of a global public.

No industry, I would suggest, has made greater progress in design these last few years than potting. The standardisation imposed during the war has not been followed by a wild return to the profusion of the 'thirties; there has been a weeding-out of the

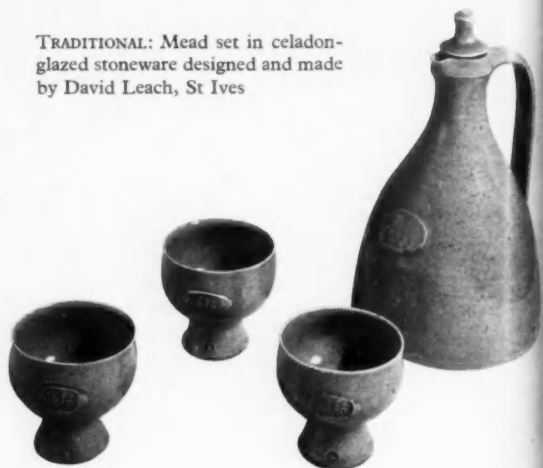
less satisfactory shapes and patterns and we are now left with material that reflects the industry's great tradition without distortion.

Post-war design has not yet hardened into a clearly recognisable style. The most popular shapes at present are those combining eighteenth-century elegance of line and proportion with a high standard of practical

CONTEMPORARY: Cocktail shaker of Diakon plastic designed by Gaby Schreiber, FSIA, and made by Runcolite Ltd



TRADITIONAL: Mead set in celadon-glazed stoneware designed and made by David Leach, St Ives



efficiency, and the favourite patterns are all rich in colour and strongly rhythmic. Fluting, scalloping and underglaze prints are in favour.

Table glassware is of two kinds, hand-blown and machine-moulded. Hand-blown glass is made — on a comparatively small scale — from a material or 'metal' of great purity known as glass of lead or English lead-crystal. The key men in its manufacture are those ancient craftsmen the glass-blower and the glass-cutter. Pressed and power-blown glass (usually with soda and lime as the basic ingredients) is a neo-technic product, an offshoot of the glass bottle industry.

Both types have shown striking improvement in design in recent years. The heavy, over-elaborate cutting of hand-blown glass has been largely abandoned in favour of shallow cutting, engraving or intaglio — methods of decoration that bring out the dense, crystalline brilliance of the material without destroying the natural beauty of the blown shape. And the designer of machine-moulded glass no longer tries to disguise the method of production by offering imitations of hand-blown cut crystal: he has devised shapes and textures that develop and enrich the specific qualities of what is really a new industrial material. Some of the cheap pressed glass bowls now being manufactured are remarkably handsome.

Heavy taxation has made silverware more precious than ever. It is beyond the purse of most people and is bought chiefly on exceptional commemorative occasions. The shop windows inform us, however, that the newest designs in silver tableware maintain the industry's tradition of sound craftsmanship. Improvements in machine processes have resulted in greater precision and uniformity; and in order to make the most of these qualities the designer has developed a style of superficial decoration that is restrained and formal.

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English china and glass for the American table

THIS PLACE SETTING, photographed in New York, includes Wedgwood pottery and Whitefriars glass. The plates are of fine bone china in the *Sandringham* pattern—a recent design by Victor Skellern, ARCA, FSIA, art director of Josiah Wedgwood and Sons Ltd, in which a small posy is surrounded by a conventionalised ribbon border. It is selling well in the American market. The wine-glasses are from the *Embassy* service, designed by W. J. Wilson, MSIA, of James Powell and Sons (Whitefriars) Ltd

The coloured pottery shown on this and the following pages is not, at present, on sale in the home market: it would be unfair to judge the pottery industry by what one sees in the shops today. The illustrations here, showing designs for overseas markets, serve as a reminder that British potters have not lost the skill for which they are renowned, nor pottery designers their artistry and freshness of approach. 'All new designs have been prepared primarily for markets overseas, particularly for North America.'



Top shelf, left: plate from a Minton set in bone china, designed by John W. Wadsworth, MSIA. The rim is grey with stencilled daisy diaper; palm leaves overlaid in gold complete the pattern. *Right,* the Wedgwood *Green Leaf* design was developed by Victor Skellern, ARCA, from a traditional Wedgwood pattern — now colour-printed whereas formerly it was printed in outline and filled in by hand. The *Queen's* shape is eighteenth-century

Middle shelf, left: earthenware by Johnson Brothers (Hanley) Ltd is made with transparent glaze on various coloured bodies. *Greydawn* is illustrated. *Right,* a design by Susie Cooper, RDI, for the Susie Cooper Pottery Ltd, with sgraffito freehand motif against a background of fern green. Contrast with the more formal treatment of leaves in the Spode design below. The body is earthenware (*Falcon* shape)

Bottom shelf, left: a Spode design by W. T. Copeland and Sons Ltd. The body is stone china in the *London* shape. The decoration consists of a traditional vine-leaf border in Mazarin blue with gold edge. *Right,* Bristol pottery from Pountney and Co Ltd. The earthenware body carries on-glaze aerograph colour with incised pattern of Cecil Garland's *Snowflake* design in white

IN THE *Symphony* decoration, designed by Harold Bailey, LSIA, for Shore and Coggins Ltd, the abstract pattern consists of interlacing motifs of sage green and white on a pale green ground



AS IN many earlier English pottery designs, there is a hint of Oriental influence in this *Avondale* pattern, designed by Harold Lawton, LSIA, for R. H. and S. L. Plant Ltd. The flower motifs are on-glaze printed, and the burnished gold stems are hand traced



THE DECORATION on this turkey dish is traditional in intention. Known as the *Old Flower Print*, it is an example of underglaze printing from an engraved design, with colouring added by hand. Designed and made by Johnson Brothers (Hanley) Ltd



sign by
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ts of a
Mazarin
Bristol
Co Ltd.
on-glaze
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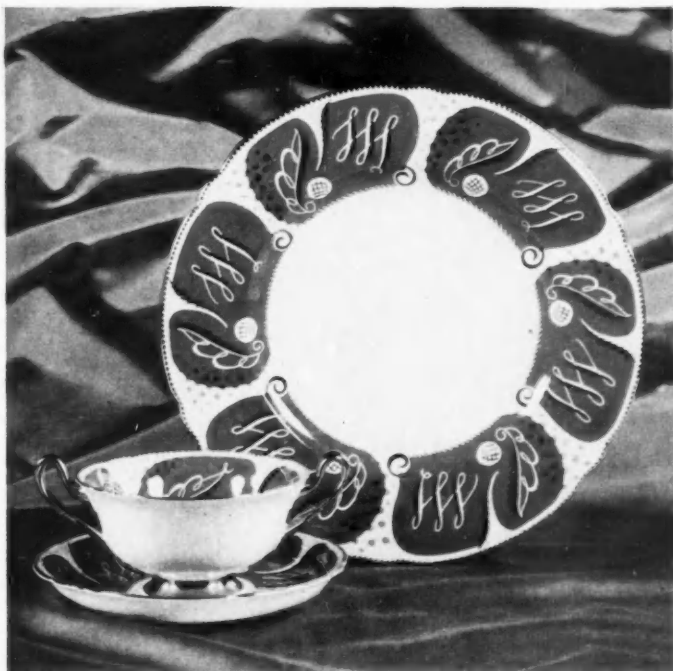
BOLD FREEHAND-PAINTED pattern characterises the *Oakville* range of inexpensive earthenware by T. G. Green and Co Ltd, Church Gresley. It sells especially well as breakfast

ware in North America, and is also in demand in Jamaica and West Africa. Its bright colours merit comparison with the dress fabrics for West Africa shown on p. 63



DELICACY OF LINE matches the fineness of the china in the *Cotswold* dinner and tea services. The floral border echoes the theme of the central motif. Designed by A. Wagg and made by T. C. Wild and Sons Ltd, Stoke-on-Trent

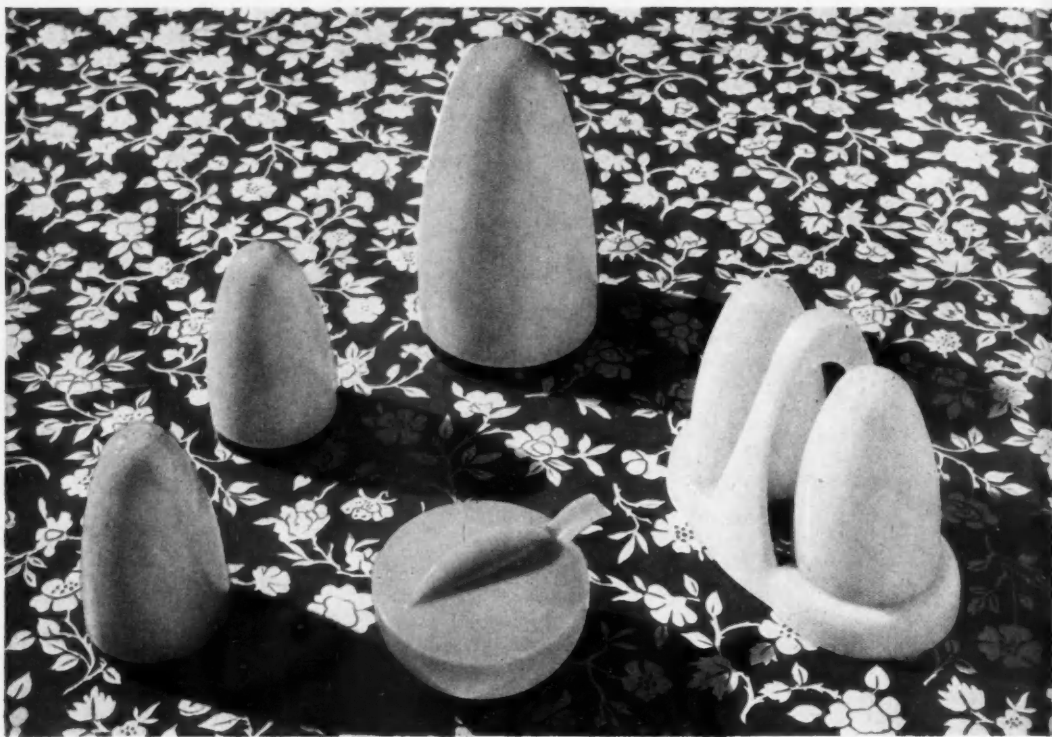
STRONG COLOUR and firm line characterise this dinner plate and soup bowl in Eric W. Slater's *Symphony* design for Shelley Potteries Ltd



WHERE LIGHT WEIGHT is important, in BOAC aircraft, plastics replace pottery. Tray (from Wokingham Plastics Ltd, EC3) and plates and dishes (from British Artid Plastics Ltd, Slough) have been considered as a single design problem: everything for a laid place is self-contained.

The knives, spoons and forks are the *Grace* pattern by Gladwin Ltd, Sheffield. They were designed by Kenneth Holmes, OBE, ARCA, MSIA, and N. G. R. Poynton, ARCA, to suit the eating habits of users of any nationality. The glass is by B. Jonzen and Co Ltd, EC1

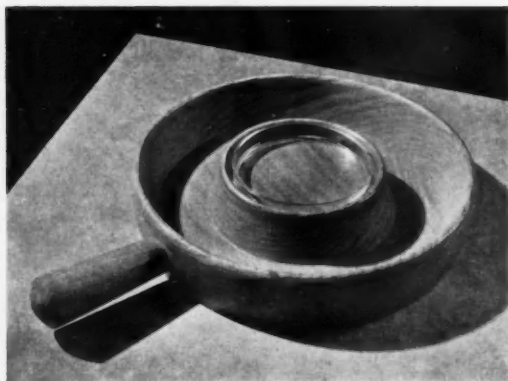




IN THEIR SMOOTH OUTLINES, the condiment sets and sugar dredger above are typical of good design for mass production, using the curved forms characteristic of the plastic moulding process. They are Streetly mouldings in Beetle powder, designed by A. H. Woodfull, MSIA, sold inexpensively over the counters of a thousand chain-stores. Above, they are shown against a Storalan table-covering material made by Storeys of Lancaster. It is produced by coating a cotton cloth with Geon PVC plastic and then printing by the silk-screen process

Table accessories

THE BISCUIT AND BUTTER BOWL, with marmite-type handle, is turned from elm and holds a dish of smoke-coloured glass. Designed by A. S. Parkin-Moore and made by Mills Moore and Co Ltd, W1



ENGLISH WALNUT has been used for the breakfast set illustrated below. It consists of salt and pepper shakers and two egg-cups. Designed and produced by The Betula Ltd, NW1



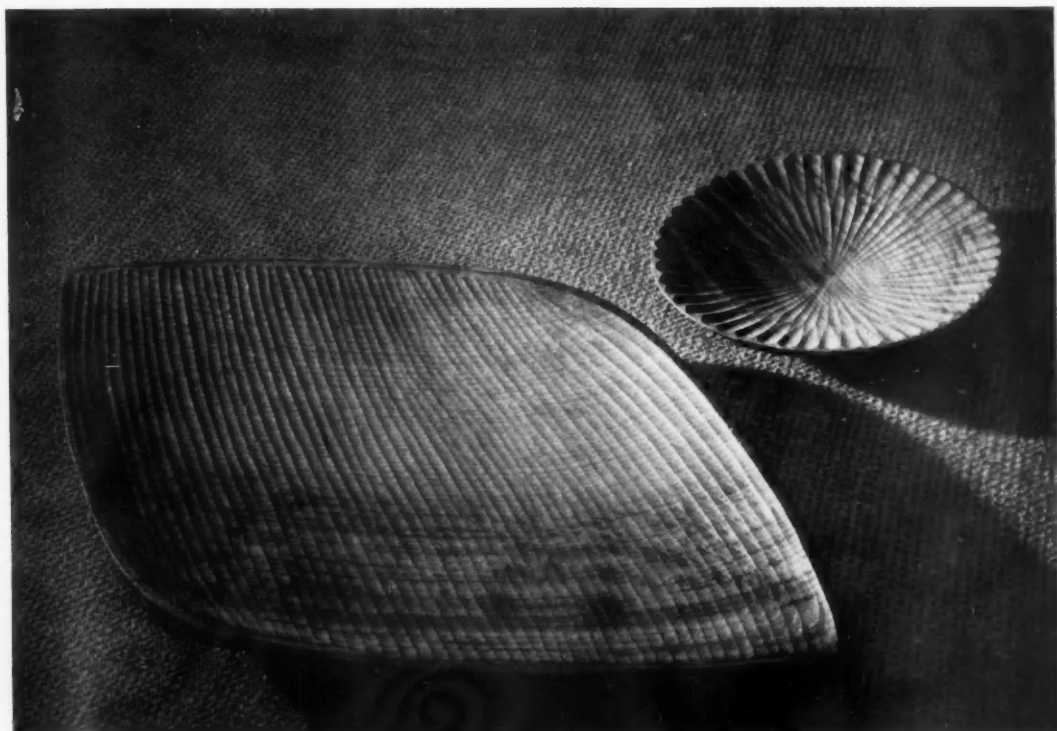


TWO MILLS for those who prefer their pepper freshly ground. The wooden container for the mechanism is modified in shape with decorative effect. Both variations — ribbed and waisted — are convenient to hold. Designed and made by Park Green and Co Ltd, SW1



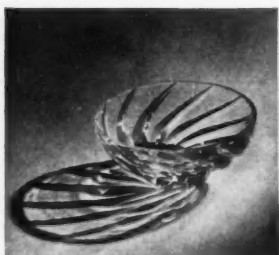
CONDIMENT SET in elm, with sycamore spoons, designed and made by B. A. Oxley, Windsor. Here is the solution of a design problem in traditional natural materials. On facing page is illustrated another solution of the same problem, using new synthetic materials — plastics

SYCAMORE, LIME, CHERRY, walnut and yew are all used in making platters of the shapes illustrated below. In these, the basic shape is the medium for carved decoration of a kind that could not be achieved by turning; instead, a fluting engine is used, hand-driven and hand-guided. Designed and made by David W. Pye, ARIBA, MSIA, Wadhurst, Kent





GLASSWARE



TRADITIONAL ELEGANCE of shape characterises this crystal service designed by Tom Jones. Decoration, in the form of fluted cutting and engraved cyphers, is restrained but effective. It was presented to HRH Princess Elizabeth by the makers, Stevens and Williams Ltd, Brierley Hill

HAND-CUT CRYSTAL fruit bowl (left) designed by Irene M. Stevens for Thomas Webb and Corbett Ltd, Stourbridge

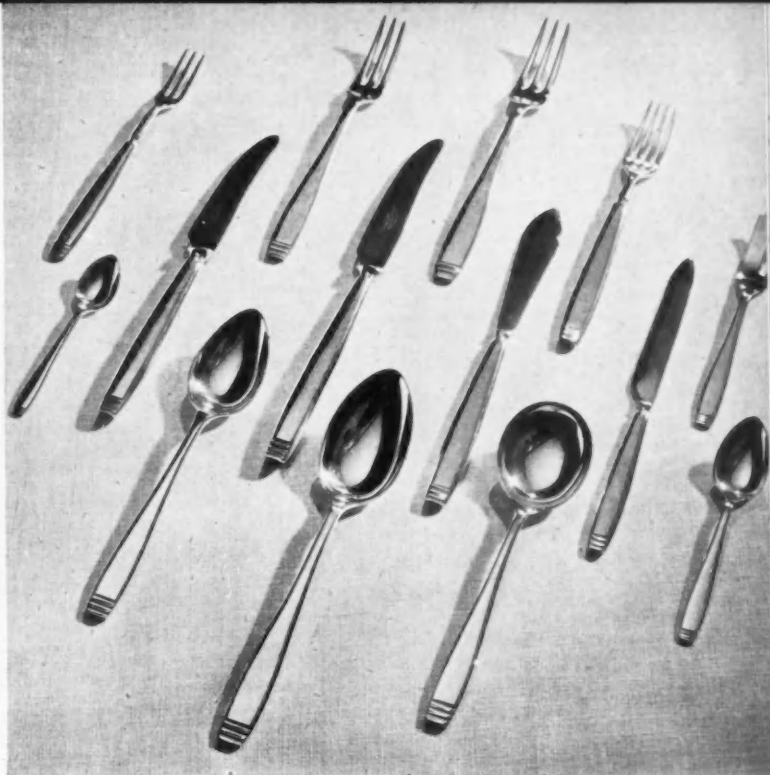
THE TUMBLER is one of a *Wayside* set of six, each decorated with a different flower. Designed and engraved by Harold Gordon, Forres

GOOD EXAMPLES of machine-moulded glassware, depending for their interest on shape rather than decoration, have been widely illustrated in recent years. There is also inexpensive hand-made glass that can be judged—favourably—by the same standard: *e.g.*, the set of jug and glasses illustrated below. The heavy bases are practical as well as decorative because they avoid upsetting. Nazeing Glass Works Ltd, Broxbourne



ELKINGTON'S 'ROCHESTER' PATTERN, right, was one of the first modern British designs in cutlery and flatware. It is still in firm demand

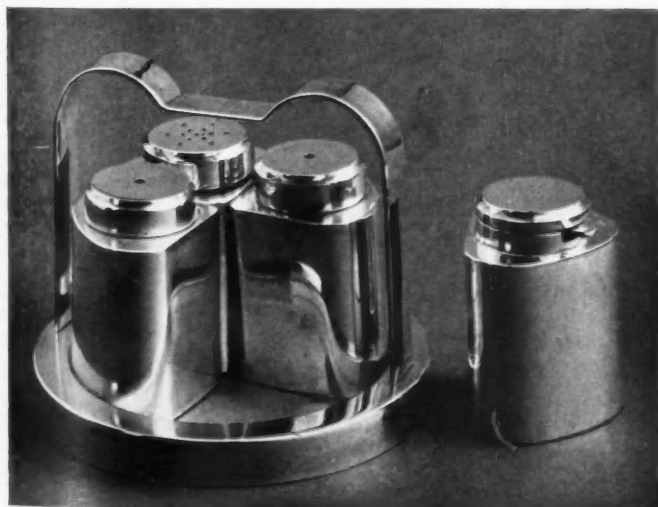
TEA KNIVES, below, designed by Walter P. Belk, made by Roberts and Belk Ltd, Sheffield

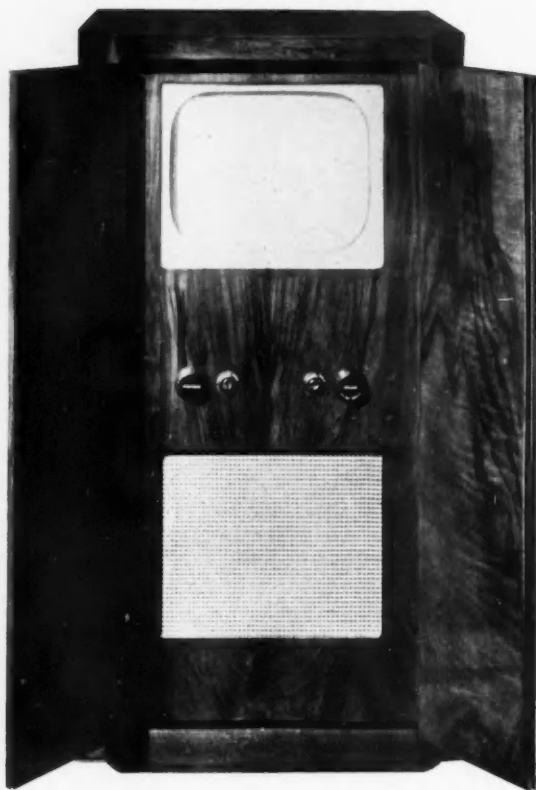


THE SILVER COFFEE POT AND BOWL, designed and made by D. Mellor at the Royal College of Art, was a prize-winning entry in the 1950 National Design Competition of the Design and Research Centre

THE CIRCULAR CRUET was specially designed for use in aircraft and restaurants of BOAC by Kenneth Holmes, OBE, ARCA, MSIA, and N. R. G. Poynton, ARCA. On the theory that more people take salt than pepper or mustard, there are two containers for salt to one for each of the other condiments. Made by Gladwin Ltd, Sheffield

TROPHIES HAVE BEEN conservative in design for too long. This design by A. G. Styles for the Goldsmiths and Silversmiths Company Ltd shows the grace and dignity possible in a rather more modern style





BUSH CONSOLE television receiver; walnut cabinet by Bath Cabinet Makers and Artcraft Ltd

Design for leisure

by

Sir Stephen Tallents

THIRTY YEARS AGO, in the turmoil which followed the first great war, I spent eighteen months in what had formerly been the Baltic Provinces of Russia and were then emerging as the free countries of Estonia, Latvia and Lithuania. The great Balt landlords were in jeopardy and some of their choicest possessions were appearing in the shop-windows of Riga and Reval. It astonished me to see how many of those possessions — fine china and colour prints, clocks and furniture — had come from England in the late eighteenth century. The sight of them in those distant streets brought home to me the superb standard of design achieved by our country, not only in domestic architecture but in all the articles of daily use and enjoyment which made the English Georgian home so delightful. That excellence had endowed these products of Britain with unchallengeable passports to all Europe.

The experience impressed upon my mind the vital importance of good design in industry; and ever since my eyes have been alert to observe examples of good design in modern production.

Britain's pioneer work in the industrial revolution

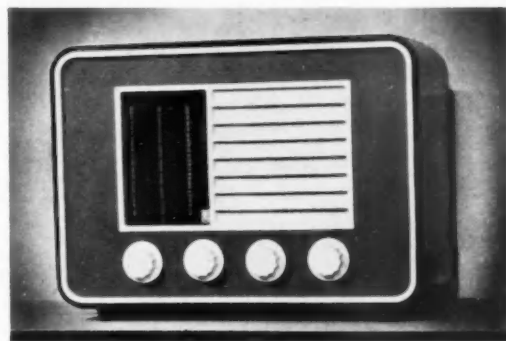
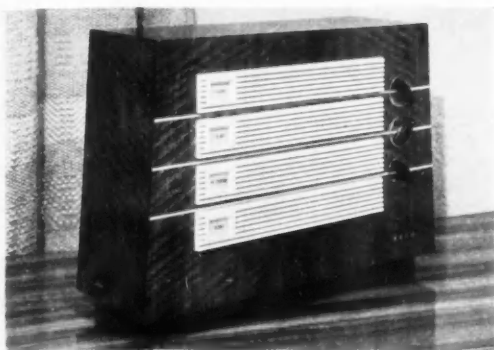
submerged for a while her native genius for design. Today those gifts are reasserting themselves widely, and not least in the many-sided industries with which pages 47 to 51 and 68-70 of this book deal.

There is no room to deal individually with the branches of manufacture which this section embraces. It is however clear that more than one influence is at work within it to secure perfection of design.

In one group — ranging from cameras to tennis racquets — the governing factor is function. The first demand upon photographic equipment and sports gear alike is that they should serve their individual purposes. Here a well-tested discipline is imposed upon the designer by the known requirements of the photographer or the tennis player; and the designer is supported by the experience of the craftsmen with whom he is in alliance.

In another group — outstanding among them the radio and television receivers — excellence of design is required alike by the pressure of international competition and by the demand for products to grace both the humblest and the wealthiest homes. (I

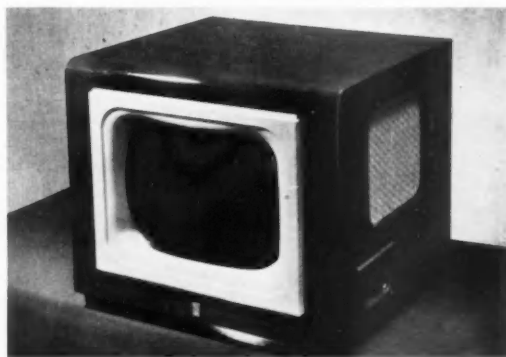
always think of the admirable British telephone receiver as having given me a happy introduction to this group when I joined the General Post Office in 1933.) Here, too, the designer has his disciplines to obey, but the controls are more remote: in his choice of material and in his forms he has greater liberty than his colleagues in the former group. Present-day products show that manufacturers have not disdained to combine with British talent gifts of design from beyond the narrow seas which political pressures elsewhere have again brought to blend with our native resources.



FERRANTI TABLE RADIO: moulded cabinet in black with grey fascia and white fittings designed by the late Christopher Nicholson, MA, FRIBA

EKCO 'CONNOISSEUR' TABLE RADIO, left, with tuning by click selection of four pre-set stations, is designed for maximum ease of listening with minimum trouble. Its shallowness from front to back enables it to stand on a mantelpiece

And the toys? Children are conservative creatures, and are best left to speak for themselves. If anyone should doubt whether modern British toys satisfy the taste of the children, I would refer him to the crowds of excited youngsters through which, at the toy shops, I threaded my way slowly last December in an attempt to assess the trend of design in that fastidious market; to the excitement of my own small grandchildren as they unpacked their stockings on Christmas morning, and the intent delight with which that evening they set about crowning their new favourites upon the nursery floor.

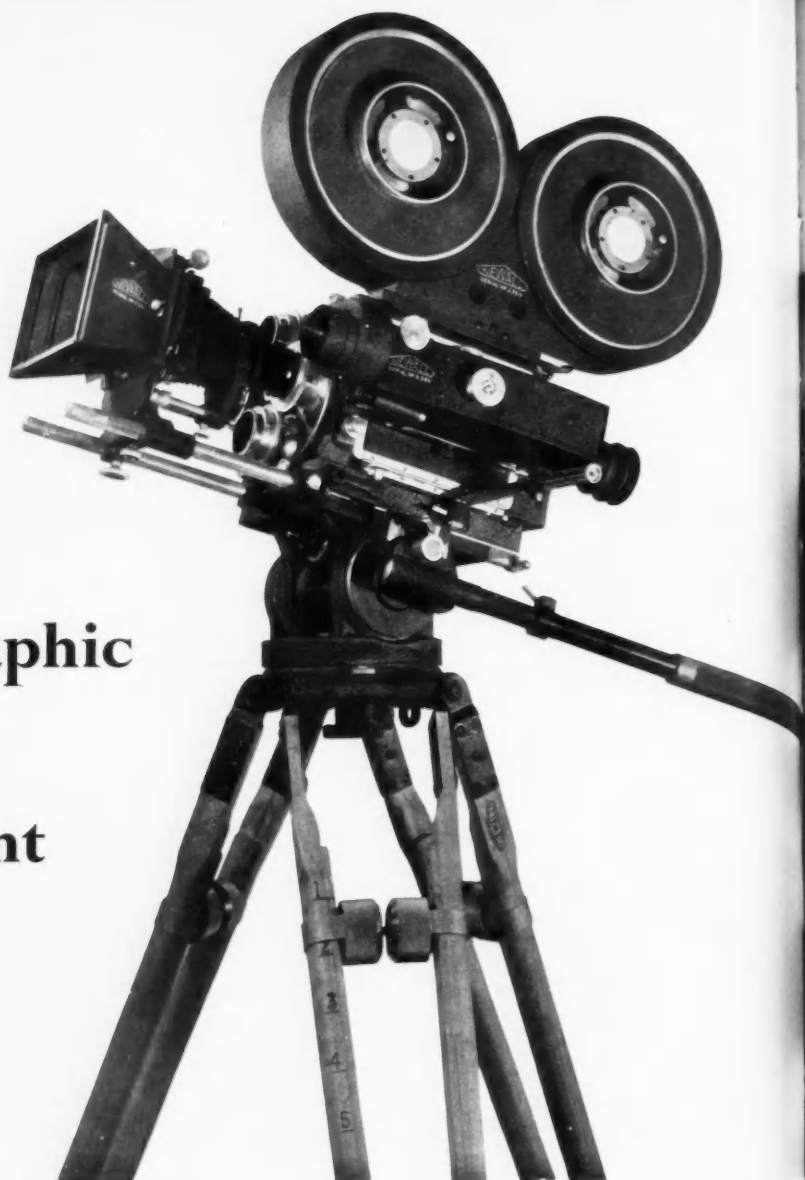


FERGUSON TABLE television receiver, with walnut cabinet and moulded escutcheon and mask. The 12-inch tube has a neutral colour filter for viewing in strong light

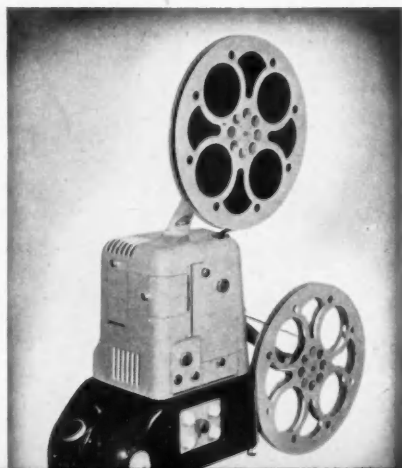


IN THIS PORTABLE SET by McMichael, the control panel is recessed so that the knobs do not protrude. The cabinet is of plywood with a plastic covering. Designed by H. F. Buckmaster, MBE

Cinema and photographic equipment



WORKMANLIKE APPEARANCE and precision engineering characterise the Newall 35 mm motion-picture camera, which is intended primarily for studio use. Developed since the war, this British camera is designed to fit standard American mountings and is now in use in the American film industry as well as the British



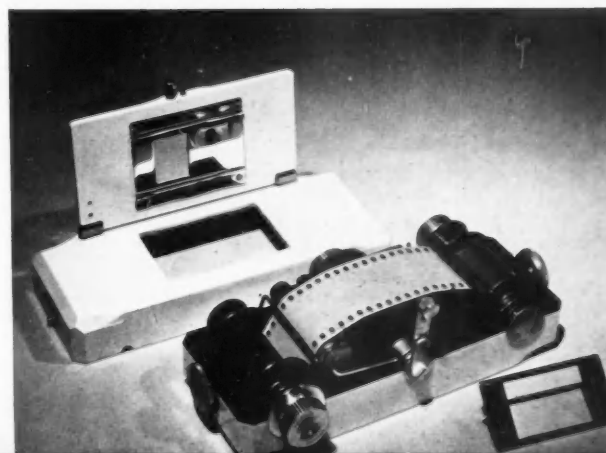
A 16 MM FILM PROJECTOR designed on the lines of full-size professional equipment. The whole mechanism and the film path are totally enclosed. Aluminium alloy castings are used for the body, and the finish is a high-gloss enamel. The choice of continuous or intermittent movement enables either films or film strips to be shown. Designed by E. H. Wilson and made by S. G. Brown Ltd, Watford

AN OPTICAL AID to the teacher or lecturer is the Aldis *Belshazzar* projector, right. Besides slides, colour transparencies and X-ray films, it can show diagrams or messages written, at the time, on the flat surface seen below the lens. The image is transmitted from the shaped housing, the back of which is seen at top of picture



TWO BRITISH EXAMPLES of modern miniature-camera design. The *Wrayflex*, made by Wray (Optical Works) Ltd, Bromley, is unusual among equipment of this size in being a reflex camera. Critical focusing is possible. The *Witness* (Peto Scott Electrical Instruments Ltd, Weybridge) follows more closely the accepted miniature-camera lines. With two years of production planning reflected in its high quality, it compares favourably with current foreign designs in the same field

THE FILM STRIP PRINTER, right, designed by Walter Kennedy for Ilford Ltd, makes good use of die-castings to achieve its clean external lines





SPORTS GEAR

New materials make modern equipment for archery and badminton

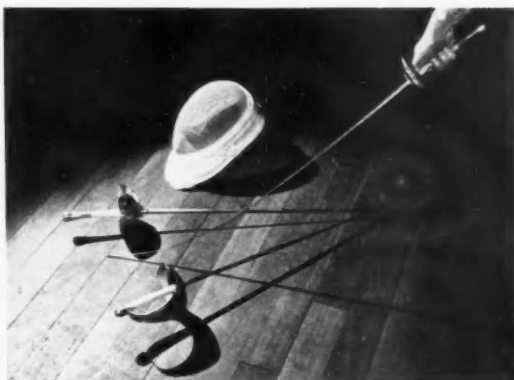
THE BOW is of high-tensile tubular steel, instead of the traditional yew; the arrow is shafted with aluminium alloy instead of pine or deal. *Apollo* models by Accles and Pollock Ltd, Birmingham

THE SHUTTLECOCKS are made completely of alkathene plastic instead of goose feathers, cork and leather. The traditional shuttlecock contains 23 components, which must be assembled individually; this pattern is made in one piece and one operation. Designed by W. C. Carlton and made for Carlton Shuttlecocks Ltd, Hornchurch





LACELESS FOOTBALL, giving a smoother surface for greater ease in control — the manufacturers of this ball are Webber Bros, SE25

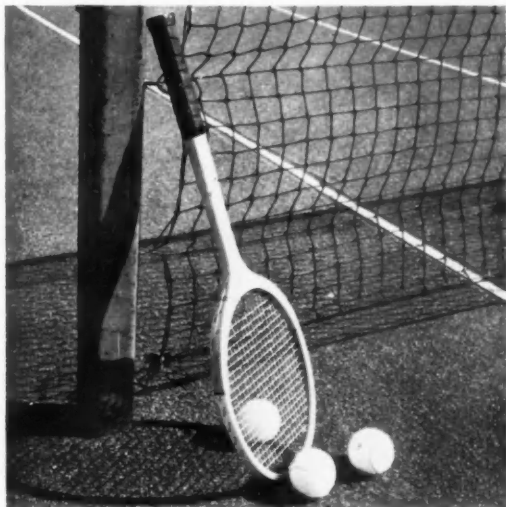


FENCING EQUIPMENT with blades forged, as in the past, of steel, but with hand guards or 'cups' of aluminium. Wilkinson Sword Co Ltd, W4

THE SEARCH FOR improved performance has led to ingenious application of new techniques in making sports gear. Laminated construction is used for both tennis racket and skis

THE RACKET is built up of strips of timber glued together and bent to shape under pressure. By this means any unevenness in the wood is distributed. H. J. Gray and Sons Ltd, Cambridge

THE GOMME SKIS consist of six layers of high-tensile steel, plastic and wood, bonded together by the Redux process, developed for aircraft during World War II. British-invented, these skis mark an advance in speed, control and durability. (Bindings and tubular steel ski sticks by Lillywhites Ltd, SW1)





IN THIS GROUP THE ZIPPER BAGS are: left, *Greban* eather-trimmed fabric SPORTS BAG with separate compartments for dry clothing and damp shoes; Wm. Thomlinson Ltd, Glasgow: right, *Pakawa* CLUB BAG, in cowhide; Barrow, Hepburn and Gale Ltd, SE1. THE CASES are: left, *Clipper-Valet* hide 'TWO-SUITER' (from a suite); John Waterer, FSIA, for S. Clarke and Co Ltd, EC1: centre, *Pendragon* LADY'S CASE (also from a suite) of top-grain cowhide, with tooled

check pattern; Douglas Scott, MSIA, for Papworth Industries: right, *Silver Airport* CASE in non-rusting alloy with resilient silver-colour coating; Cyril G. Lewis for B. Lewis (Pioneer Works) Ltd, E10. In front, a fitted TRAVELLING CASE in cowhide, with spongeable lining, designed to open conveniently on the knee when travelling in train or air-liner; T. C. Maylor, MSIA, for W. A. Maylor and Co Ltd, WC1

Travel goods

move with the times

by John W. Waterer

SOCIAL AND ECONOMIC CHANGES have wrought a revolution in luggage design within half a century. Its extent is not yet widely realised because of the difficulties of the past decade; under normal conditions there would have been a widespread flowering of the experiment and trials of the inter-war years. But to those who can recollect the saddlers' and trunk-makers' shops of the 1900's, with their limited range of portmanteaux, Gladstone, Rosebery, kit, brief and square bags, their black japanned-canvas cabin-trunks and dress-baskets, it is startling to compare the colourful, convenient and often quite charming hand-luggage of today. Changes in type, materials and methods of construction have been brought about by the changed needs of the travelling public. Among the causes have been lighter clothing, the motor-car, air travel, dwindling servitors, the week-end habit, expansion of paid holidays, the tempo of modern life which has brought into use devices to speed up the process of packing; and the fashion element, which has strongly influenced appearance and made popular the matched suite.

For certain purposes trunks will always be necessary, but their use is contracting and it is in hand-luggage that most of the developments of recent years are to be noted. Among the most important, interior fittings (developed from the wardrobe trunk) enable dresses and suits to be carried on hangers and suitably folded by simple devices. Perhaps the most striking progress has been in the steady reduction of weight, despite these interior fittings—in the best examples, without undue sacrifice of durability; but it is not yet realised widely enough that the weight of the potential contents governs the construction of any luggage and that a large case or bag which may be required to carry 60 lb. or more must be robust.

The zip fastener was one of the major factors in weight reduction; it replaced heavier frames and locks and suggested new methods of construction, freeing the designer from traditional limitations. The later use of channelled steel framing in combination with specially designed locks has also played an important



Aristo light-weight zipper bag, wide-opening, in fast-colour cowhide, designed by F. W. Cooper for S. Clarke & Co Ltd

part. Reinforcements, often only at vital points, include 'fibre' boards, thin plywood and aluminium alloys. Recent developments include the use of moulded shells of non-brittle plastics, and tubular aluminium-alloy frames. Handles are often of metal, leather covered, or of injection-moulded plastics such as polystyrene, which is also used for hangers.

Leather, which has been utilised for luggage from prehistoric times, has played an important part in the evolution of light luggage. This may sound surprising to those who know only the cumbersome leather containers of the nineteenth century: whereas they were made of sole-leather weight, modern luggage employs split-hide, the top or grain layer averaging 1.5 mm. in substance. English coach hide, a recent introduction, is in fact a reversion to ancient methods of dressing with dye and grease impregnation which preserve all the rugged characteristics that form much of the charm of leather.

Many kinds of fabric are now used: 'leathercloths' coated with nitrocellulose or vinyl, cotton or rayon fabrics with woven or printed designs in great variety, and woven plastic fabric which is virtually indestructible and shows no marks. Traditional adhesives have been replaced by modern types unaffected by changes of temperature or humidity.

Light alloys have been used with a certain amount of success for the main construction of cases, but resilience rather than rigidity is generally considered desirable for lightly-built hand-luggage.

In view of the present emphasis on dollar markets, it is not surprising that types and styles evolved and accepted there should be reflected rather prominently in current British models, but slavish copying has been avoided; indeed, some recent features of British luggage design have attracted the attention of American manufacturers.



'PAKAWA' DOCUMENT CASE, in grained cowhide with specially designed safety locks, by Barrow, Hepburn and Gale Ltd, SE1



WORKING ON THE PRINCIPLE that the design of an efficient travelling iron involves more than scaling-down a large iron, Lucas Holder Ltd of Coventry produced the *Smoothie*, with case to fit. A flat plastic cover, recessed at the sides, is used instead of a projecting handle. Plastics are employed also for the heel to the soleplate, so that the iron can be stood safely when hot



'PENDRAGON' MATCHING LUGGAGE from Papworth Industries, designed in collaboration with Douglas Scott. The cases are made of top-grain cowhide on an aero-plywood foundation, with channelled frame of aluminium alloy



AIR-TRAVEL LUGGAGE, by Clarke's, in Tygan woven plastic with polystyrene hangers and duralumin folding-frames: Tygan designed by Margaret Leischner; lining by Enid Marx; fittings by John Waterer



'VIKING' AIR LUGGAGE uses a moulded Fibrenyle shell with leather or fabric covering. The two-suit model, open, has duralumin tubular fittings. Collaborating designer, John Waterer, manufacturer, Clarke's



'ANTLER' LIGHTWEIGHT soft-sided luggage of waterproof canvas. Collaborating designer, T. A. Fennimore; manufacturer, J. B. Brooks and Co Ltd. Below, lady executive's combined overnight and brief case in cowhide. Finnigans



Keepsakes of 1951

by Robin Darwin

'ONCE UPON A MANTELPIECE. . . ' I remember a children's book not long since beginning with these magic words and going on to describe the surprising adventures of some china pig or whatever the ornament may have been. Well, once upon a mantelpiece in every home in England there would have stood, a century ago, some souvenir or keepsake from the Great Exhibition of 1851 — a highly decorated mug perhaps, a glass paperweight or a Staffordshire figure of the Prince Consort, symbolically appropriate in white and gold. The nineteenth century was the great age of keepsakes. Every notable event of history would be suitably commemorated; every small but personally important event such as an excursion to London or the seaside would be enshrined by some memento until the normal parlour of those days became a temple of hallowed nicknacks. The whole effect might seem a little stifling to our tastes today and too suffused with sentiment perhaps, but individually these keepsakes were usually as pretty as they were useless. Those, in fact, were the two characteristic functions of the old-fashioned souvenir — to be trifles but to trifle as prettily as possible.

Today we live in a sterner and more realistic age. We are half ashamed of our sentiments; we are frightened of prettiness. The canon by which we judge all things and all people is that of utility. I think we overdo this materialism. I think, too, that secretly in our hearts we all of us cherish some of the simple sentiments of our great-grandparents, and that if we dared admit it we can still share with them their love of make-believe, of the miniature model, of nonsense for nonsense sake and even of prettiness for itself alone. At any rate I hope so; and I hope too that in the great flood of souvenirs which will be made to commemorate this Festival year there will be opportunity enough to satisfy such feelings.

The Souvenir Committee set up jointly by the Festival of Britain office and the Council of Industrial Design has, since the middle of last year, been selecting from this flood those which it thinks are the most original, the best designed, and from all other points of view to be of good value. Only those so selected are on sale in the official exhibitions of the Festival. It must be admitted that most of the souvenirs submitted have been of a sternly utilitarian nature; a regrettably large proportion have consisted simply of ordinary merchandise stamped with the Festival symbol or with suitably commemorative wording. Relatively few seem to have been designed specially for the occasion — which seems curiously unadventurous; but at the time of writing the flood of submissions is still in full spate, and perhaps this tendency will mend. In any case many excellent and enchanting ideas have been put forward, a very small selection of which is illustrated on this page and overleaf.

Certainly the range of goods sent in is enormous. . . . There have been scarves, head-squares, ties, braces — the prettiest scarf, perhaps, a replica of one sold in 1851; the most surprising, a pair of braces with a picture of Nelson's column woven into the elastic so that the height of this landmark depends on the proportions of the wearer. There have been ashtrays, tea caddies, spoons for every imaginable and unimaginable purpose; buttons, medals, and costume jewellery galore; paperweights, pincushions, pencils and pens; torches in the shape of Big Ben, pencil sharpeners concealed in models of St Paul's; purses and powder compacts; balloons, bookmarks, brass door knockers . . . the list is interminable and the choice infinite. Some are charming, some — well, let us say that in their very vulgarity there lies some charm. One way or another all epitomise the age in which we live, and so I hope that a century hence many will still be preserved as keepsakes of this extraordinary year, 1951.



TEAPOT STAND: British Heat-Resisting Glass Co Ltd, Bilston



STUD-BOX: Patterson and Stone Ltd, Walsall



TOBACCO BOX: Metal Box Co Ltd



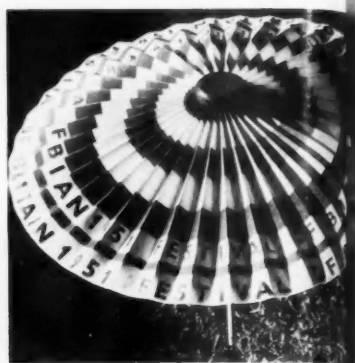
HORSE-BRASS: Max Gate Ltd, Birmingham



OTTERY ASHTRAYS: W. B. and V. M. Curry, W13



COMPACT: Evans Components Co Ltd, Birmingham



PARASOL: Shepdale and Raggett, W



LIPPER SOX: John Carr Doughty Ltd, Leicester



JOLLY OLLY TOY: Industrial Music Ltd, W4



TIE: Welch Margetson and Co Ltd



PLATTER: Gerald Meares, Tenterden



CIGARETTE CASE: Harman Bros Ltd, Birmingham



PENCIL SHARPENER: James Bros, Harlow

Tradition or experiment in printing design?

by James Shand

DESIGN IN PRINTING is an ephemeral quality. Newspapers and periodicals, catalogues and packages, once used are soon discarded. Yet they offer the designer greater freedom than the more permanent printed book, which is still dominated by ocular convention and intellectual authority.

Printing virtues are difficult to illustrate and exhibit; yet the simple craft virtues dominate the character of British design in printing. Graphic design in this country is instinctively conservative and deeply rooted, yet the connection between newspapers and books is not so far fetched as it might seem: English daily newspapers are unequalled in type-setting and presswork. Our weekly and monthly illustrated periodicals — *Punch* and *The Illustrated London News* were first published in the decade before 1851 — have made an invaluable contribution to the development of British engraving and printing processes.

Indeed, the dominance of our periodical press and the typographical authority of books tend to overbear the real quality of the bulk of our jobbing printing; a great deal of designing skill and liveliness is evident in the work of our younger designers — art directors of advertising agencies, industrial designers, autographic illustrators, wood engravers, colour photographers and commercial typographers.

British printing material possesses quality, if not today quantity, and skilled craftsmanship. The post-war

volumes of the *Penrose Annual* would convince most critics that we lack for nothing in printing skill and performance; we lack only, perhaps, a sense of adventure in design. The medial axis still dominates our typography and *mise-en-page*; critics familiar with European movements in visual arts deplore the inability of British graphic designers to experiment more with asymmetry and impressionism.

Foreign observers may be mystified by many evocative typographical allusions to the early nineteenth century. The character of the display lettering for the 1951 Festival has Victorian origins, as also has much of the work of graphic-design students in our art schools. This phase is indicative of the reaction from the rigid classicism of most English books.

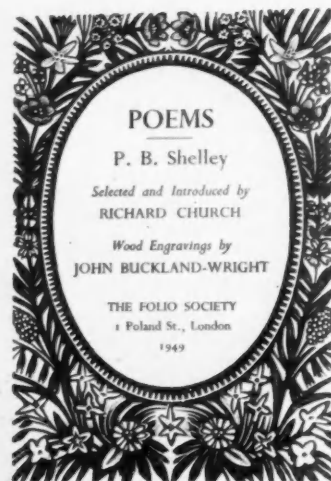
Printers unfortunately continue to suffer from shortages of material, plant, buildings, and skilled labour: the pressure of ever-rising demand on an already overtaxed capacity to produce limits opportunities for professional designers. There is nevertheless a growing consciousness that our too bookish tendencies in typographical design can be alleviated in many cases by a lighter, gayer, and more colourful touch.

The post-1945 generation of designers — as the Festival should demonstrate — are already showing their ability in exhibition and display techniques. There is promise of much liveliness in our graphic art in the next decades.



'There is a growing consciousness that bookish tendencies in design can be alleviated by a lighter, gayer, and more colourful touch.' The Faber book wrappers and Macdonald chocolate-biscuit wrappers were all designed by the same artist, Barnett

Freedman, CBE, RDI, FSIA



FRONTISPIECE AND TITLE-PAGE have matching borders in this edition of Shelley's *Poems*, printed for the Folio Society by the Chiswick Press. The type face is Perpetua (designed for the Monotype Corporation by the late Eric Gill).

Both the Shelley and the book illustrated below were included in the National Book League's Exhibition of British Book Design 1950.

The care which was formerly lavished only on expensive private-press books is now evident in the design of some — though by no means all — books produced commercially

BRITISH PRINTING DESIGN generally is dominated by book design, and book design is dominated by convention: this, in brief, is the argument put forward by James Shand in his article on p. 57. Below, traditional type faces and a formal layout aptly used in *The Countryman's Breakfast Poser and Townsman's Rural Remembrancer* by J. W. Robertson Scott, printed and published by the Oxford University Press. The text is set in Bell type of two different sizes, while the dates are in Bodoni, with a decorative rule dividing one day's entry from the next



Cleved



Suffolk

Royal National Lifeboat Institution
Founded 1824

MARCH 4

4. *These three, with drivers others, on Sunday the 4th October between 9 and 10 in the night, took Thomas Smith, Curate of Milton, and by violence put him upon a staffe, and carried him up and down the towne, and caused fiddlers to play by him.* Date?

Two hawkers stood glaring at each other. 'Fat's adae w'y' ye?' 'Naething.' 'Ye ga'e me a nasty look.' 'I'm sure no.' 'Ye had it afore I saw ye.'

Volta died 1827

MARCH 5

5. *What, according to John Buchan, is one of the greatest misfortunes of advancing age?*

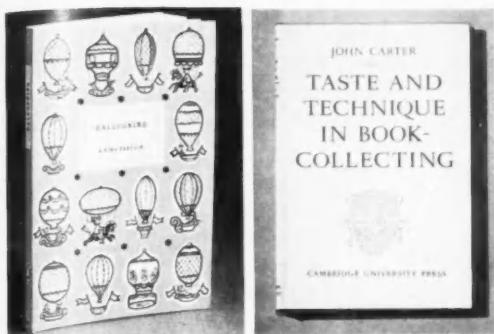
Countryman to tourist: 'Aye, hercabouts took weean't doe nobow; we has 'em to shoot.'

Elizabeth Barrett Browning born 1806

MARCH 6

6. *In 1746 beef was—how much a pound in a country town?*

'A gurt brickmaker yer granfer 'e wor tew be suer, but, mark yew, rale cruel tew wo'k for. 'E cum near kilin' me! 'Ad six men a-wheelin' clay at 'im all day long tra' dawn ta dusk, twantin' bricks quacker'n they cud sarve 'im. 'E wor a God-fearin' man an' wore 'is top hat tew church every Sunday mornin', but every year 'e knocked up wo'k an' tuk 'isself off ta Newark for a six weeks' booze, stoppin' 'i pub all the toime. Niver tuk a drink 'tween toimes, moud yew, but that six weeks 'e and 'e wudn't mek a brick for the king of England 'isself.'



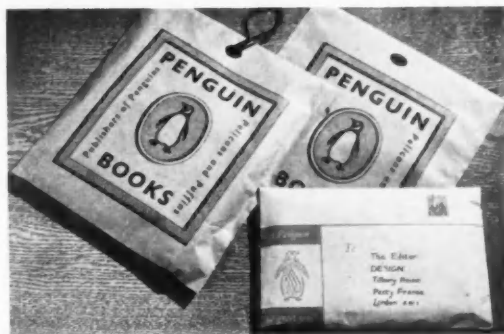
CONTRASTING STYLES in cover design — the pictorial and the typographical. In *Ballooning*, a King Penguin book, the design by Marian Mahler, MSIA, is printed on the cover paper, whereas *Taste and Technique* is represented here by its loose dust-jacket. On this, the austerity of Roman capitals, carefully letter-spaced and printed in black, is relieved by the use of colour for the University arms



PACKAGE DESIGNS that catch the eye and arouse the interest of the potential customer are most often found in the consumer-goods industries. In the packaging of mechanical equipment, it is still unusual to find such a high standard as this — the work of W. M. de Majo, MBE, MSIA. The design above (in blue and cream) is used on cartons of four sizes for Renold timing chains of various lengths



THOUGH THE PERFUME by Liberty's has been given a French name, *Intrigant*, its packaging is essentially English in style. It is part of a post-war redesign scheme for all printed matter from this Regent Street store; the capital L, in bold style, is now used as a house-mark



A LINK BETWEEN printed books and printed packaging is provided by the carrier-bag and postal envelope for Penguin Books, introduced in time for Christmas shopping last year. They were designed by Penguin's staff typographer, H. P. Schmoller; the calligraphic drawing of a penguin which appears on the envelope was done by Elizabeth Friedlander. The bold type used on the carrier bags is Gill Sans



FEW GARDEN TOOLS — or, for that matter, tools of any kind — have progressed beyond the Packed-in-a-Stout-Box stage of packaging. In these examples, an effort has been made to combine protection with good looks; the dark boxes are lined with light paper, against which the contents are held in position by elastic. The stainless steel tools are by D. and P. Products (left) and C. T. Skelton and Co Ltd

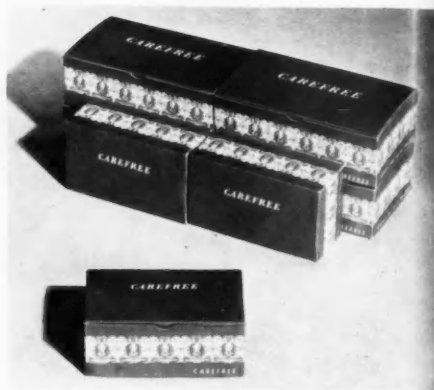


BRITISH TRANSPORT sends out film-strips to lecturers in this drum-shaped container, with name and address inserted in a panel on the brown-printed label. Designer: Norbert Dutton, FSIA. Printers: Curwen Press. Composite containers by Metal Box Co



THE PACKAGE DESIGNER must bear in mind the possibility of massed display; the effectiveness of many designs is heightened by repetition — *e.g.*, Sainsbury's tea packets and Rowntree's *Carefree* chocolate boxes. (Designed in co-operation with their advertising agents, Mather and Crowther Ltd and J. Walter Thompson Co Ltd, respectively)

BEAUTY PRODUCTS call for beauty in packaging. The Bandbox shampoo is contained in a PVC envelope, protected by a cardboard folder in which a "window" is cut to enable the contents to be seen. The Halex brushes use an outer carton designed by Pritchard Wood and Partners, printed by W. W. Cleland Ltd. Inside, a transparent plastic top fits on to an opaque base (designed by F. Curzon: makers, John Dickinson and Co Ltd and Hunt Partners Ltd respectively)





PACKS FOR GROCERIES and household goods must rely on surface-design and colour for their power of attracting the shopper's eye—their costs seldom allow elaborate construction or expensive materials to be used.

Designers of the packs illustrated above are Richard Lonsdale-Hands Associates for Scrubbs (top shelf), Frank Gayton for Goddard's printed tin; Reckitt and Colman Ltd

for the French mustard label; Bernard Griffin for Kardomah tea tins, W. S. Crawford Ltd for Maconochie can labels; Arthur Hundleby, MSIA, for Day and Martin's polish tins (group on left); Norbert Dutton, FSIA, for the Atoira carton; Kenneth L. Graham for the Idris bottles and Jesse Collins, FSIA, for their labels, and Lewitt-Him for the Kia-Ora labels. The display stand is by Multifarm Displays Ltd



Dress

FABRICS and

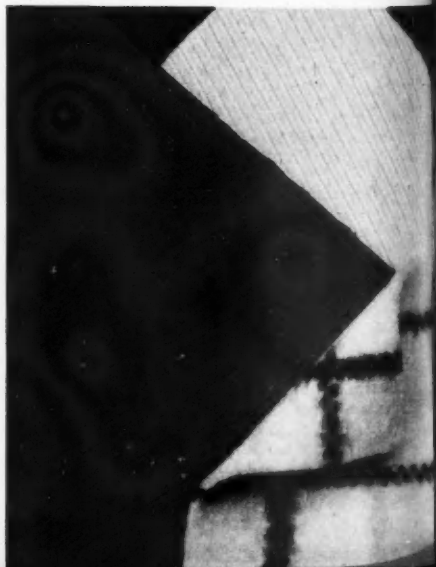
Dress

ACCESSORIES

CLASSIC TWIN SET in pure cashmere by Lyle and Scott Ltd, Hawick

THE HUNTING CLOTHS in traditional colourings, below, represent the highest degree of craftsmanship in weaving. They are functional cloths, designed to combine resistance to rain with elasticity for comfort and easy movement. Black hunt jacketing — pure worsted, waterproof — by A. E. Clegg, Huddersfield. Red and white cavalry twill by Hunt and Winterbotham Ltd, Cam, Gloucestershire. Tattersall vest material by Wain Sheill and Son Ltd, W1

BECAUSE THE CHANGING element of fashion is strong in dress design, and selection must be made some months in advance, it was not found practicable to include garments in the 1951 Stock List compiled by the Council of Industrial Design, from which the illustrations in this book have, in the main, been drawn. Instead, examples of contemporary design in dress materials and dress accessories are illustrated in the next few pages

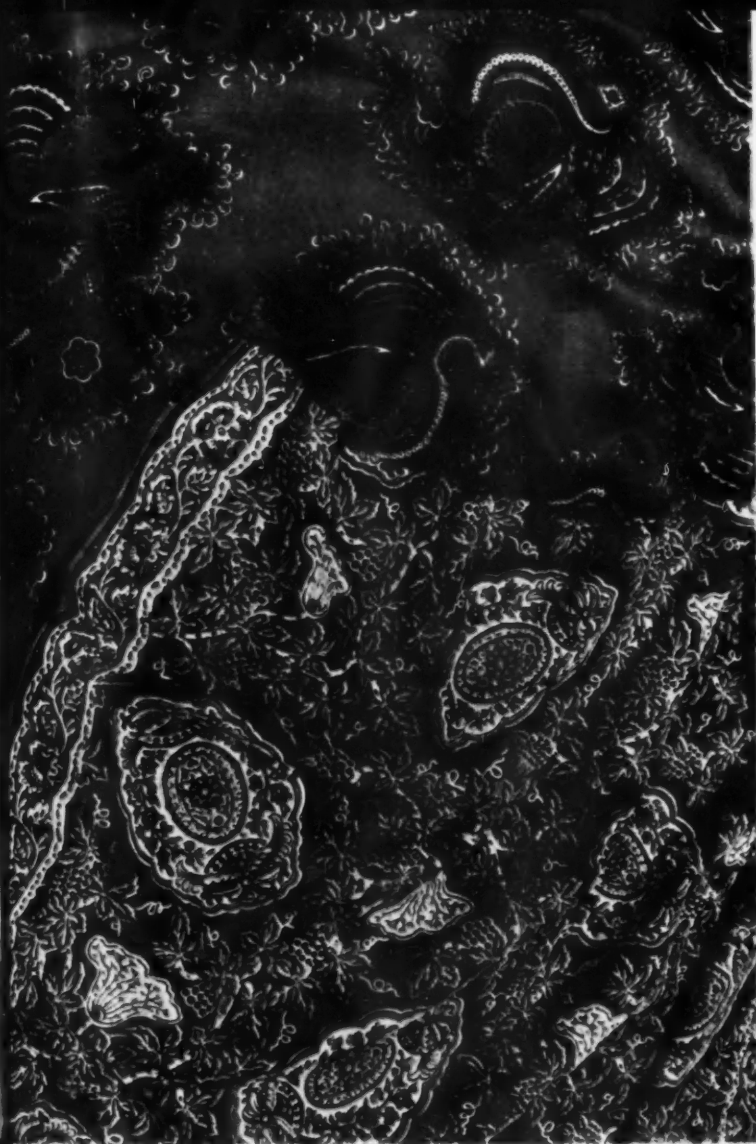


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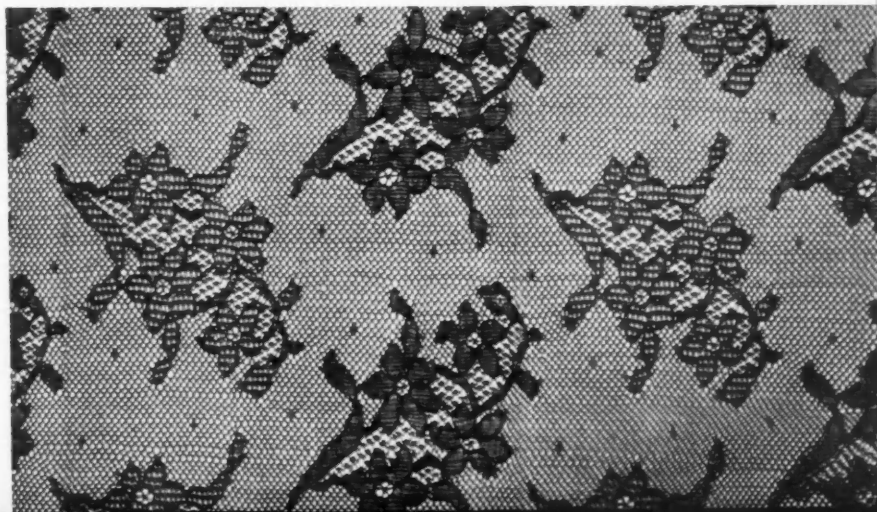
Lyle and

colourings,
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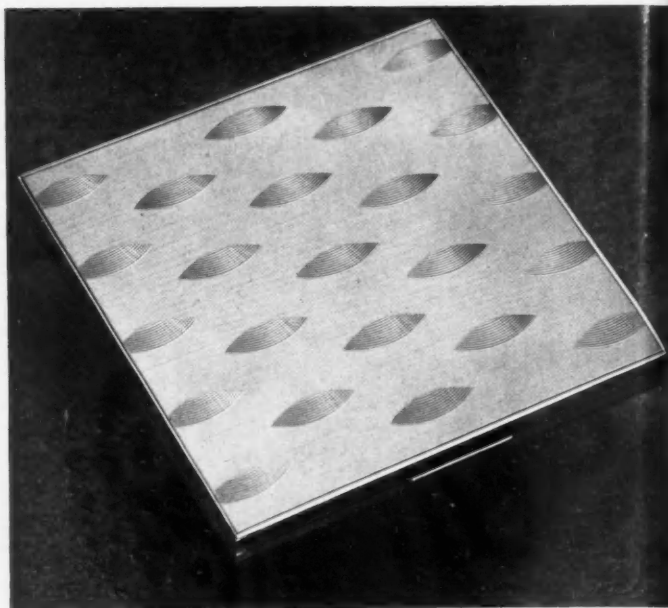
LANCASHIRE COTTONS for West Africa have been a considerable export line for many years. Too little known and used elsewhere, they show outstanding mastery of pattern and colour — “the product of the imagination of Manchester designers,” as Grace Lovat Fraser has written, “who are steeped in the traditions and tastes of far-away native populations with whom they may never have had actual personal contact.” Patterns, many of which show a resemblance to traditional Paisley designs (which themselves are largely of Eastern origin), must conform to native conventions; colours must remain within a distinct range of deep rich tones suggestive of the West African landscape. This type of colouring presents a technical challenge: only the finest kinds of resist and developed dye printing will serve. The examples illustrated are made by Logan Muckelt and Co Ltd, Manchester

DESIGN appropriate to the light, airy nature of the material, together with fine craftsmanship, earns lace a continuing popularity. This delicate chantilly was recently used by Hardy Amies for a model which was sold in the United States. Made in Nottingham by Birkin & Co Ltd



THE COMPACT has distinctive engine-turned decoration. Designed and made by Padgett and Braham Ltd, W1

THE BRACELET below, by M. P. Green-gross, ECI, consists of diamonds and platinum in a distinctly modern treatment



THE MEN'S WATCHES by Smiths have an effective simplicity. The cases are, left, stainless steel; right, gold

THE CLOQUÉS (left) illustrate two-tone and multi-colour effects. Spider's-web pattern by Argand Ltd, Bradford; others by Driver Bros, Silsden



COLOUR AND STYLE in dress accessories. Umbrella, with malacca handle and gold fittings, by T. Fox and Co Ltd, EC2. Red calf saddle-stitched handbag with buckle fastener and adjustable strap by Bembaron, W1. Navy blue calf handbag with novel gilt bar closure, by Bagcraft Ltd, W1. Red suede gloves, with concealed button and stiffened cuff, by Stylish Glove Manufacturing Co Ltd, Worcester. Scarves: *Flower Pot* by Liberty's and *Streets of London* by Jacqmar

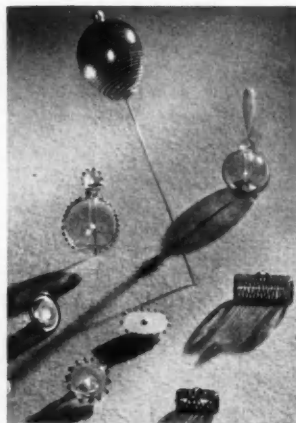


THE SHAPE OF THIS bead chain, designed primarily for the Australian and New Zealand markets, was inspired by a lariat. The bow, set with paste stones, conceals the front fastening, and large faceted paste drops weight the ends of the chain. By A. E. Clutterbuck Ltd, Birmingham

JUST AS THE hat and scarf pins exploit the glass-blower's art, so these matching sets of necklaces and ear-clips exploit that of the potter. The shapes are modelled in clay and then finished with gold, silver or copper lustre. To form the necklaces, they are fastened to velvet ribbon or silk cord. Designed by A. W. G. Ehlers ; made by the Ehlers Pottery, Bovey Tracey, Devon



STAMPED LEAF-LIKE shapes are linked together to form the oxidised silver choker necklace, above, from Bijouchic Ltd of Birmingham



THE USE OF GLASS for imitation jewels is common in costume jewellery, but in these pins for hat or scarf, glass is used in its own right. By Orplid Glass Ltd, NW3



FOOTWEAR

and leather accessories

HANDSEWN HOGSKIN GLOVES for men by
Rae-Marked Gloves Ltd, Barry; and
plaited dog-lead in peccary hogskin by
Whitehouse Cox and Co Ltd of Walsall



1 Dolcis *Casual* for men, in smooth brown calf



2 Clarks *Skyline* lady's sandal in white

3 Lotus *Veldtschoen* for men: guaranteed waterproof

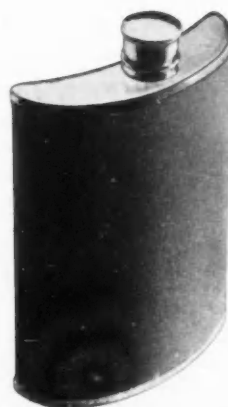


4 Lady's court shoe in tan calf by Edwards and Holmes Ltd, Norwich

5 Man's K bootee for winter motoring: sheepskin lining; Dunlop rubber triple-stud soles

6 Brevitt *Bounder*—*Pageant* model—in tan leather and dark brown suède

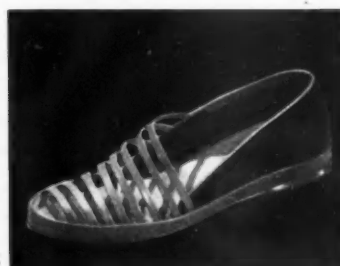
HIP-POCKET FLASK covered in pigskin and curved to fit comfortably. The copper container is coated with polished tin to avoid corrosion. By George Sheldon (Walsall) Ltd



4



5

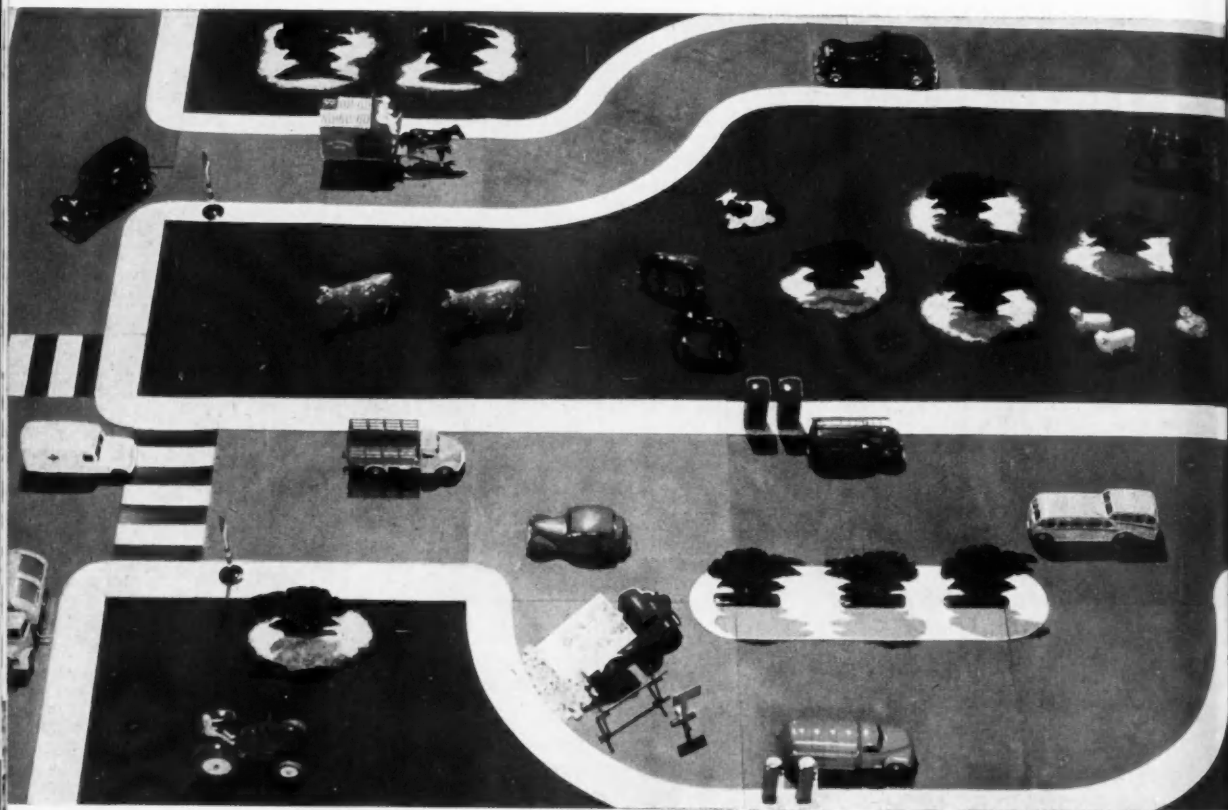


6



THE FROG *Vanfire* control-line model aeroplane (supplied in kit form).
Designed by T. R. Vanderbeek for International Model Aircraft Ltd, S.W.19

TOYS



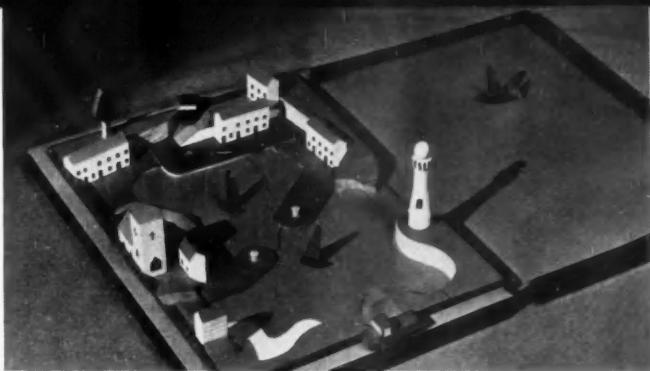
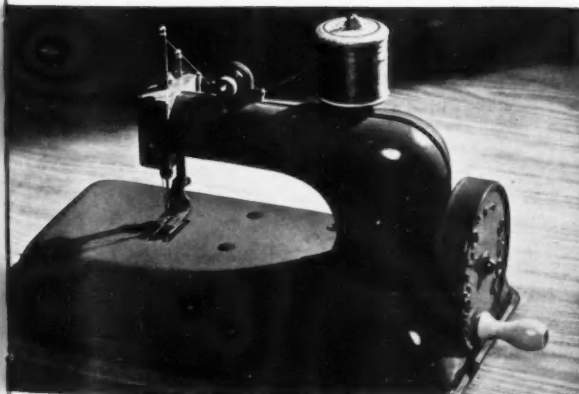
ELASTIC-DRIVEN submarine, shown on its winding stand, by Arthur Burroughs and Co Ltd, Liverpool



TRICYCLE: the Triang *Twentieth Century*, by Unique and Unity Cycle Co Ltd, Birmingham

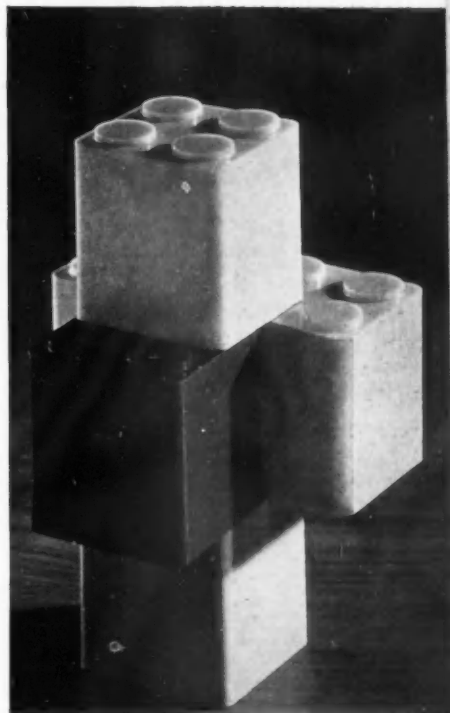
MODEL ROADWAY, on left, displays miniature scale models by a number of firms. The taxi, police car and telephone van are *Mimic* clockwork toys; the Massey-Harris tractor and other motor vehicles, which are accurate replicas of their larger counterparts, are Meccano *Dinky Toys*. Moko milk cart. Farm roller and animals by Britains Ltd, E17. Trees by Wend-al Toys Ltd, Dorset. Street furniture by Charbens and Co Ltd, N7. The roadway itself (made in short sections, which can be arranged in a variety of layouts) is by Shockstop Rubber Products Ltd, Audenshaw. It includes pavements and pedestrian crossings

SEWING MACHINE: a miniature—and working—model by Keith Lowe, Dudley



HARBOUR: a three-dimensional variation of the jigsaw, for fingers which are too young to cope with ordinary picture jigsaws. Designed by Joy and Eric Parkin and made by Nursery School Workshops Ltd, NW5

BUILDING BRICKS: an advance on the ordinary type of smooth cubes, because these interlock. Made of urea, they illustrate the suitability of plastics for toys. They can be washed for hygiene; they stand up to rough handling; and because they are light, they will not cause damage when thrown about. Designed by Hilary Page and made by Kiddicraft Ltd, Kenley



CHILD'S COOKING SET: in aluminium, by Chad Valley Ltd, Birmingham





ABOVE ARE TWO EXAMPLES of hand-made toys by Stanley Noble, Essex, turned and carved from elm, chestnut or oak, and painted in brilliant colours. The horses and squirrel, above right, are scale models designed from life. Made by Heal's from designs by Madge Dent



THE RABBITS DEMONSTRATE in use the new plastic 'Safety First' eyes (designed by Richard Evans Ellett for Dean's Rag Book Co Ltd, SW19). They are sewn on like a button, the thread passing through a tubular shank which is lacquered internally in a contrasting colour to give the effect of a pupil without cementing-in a separate component

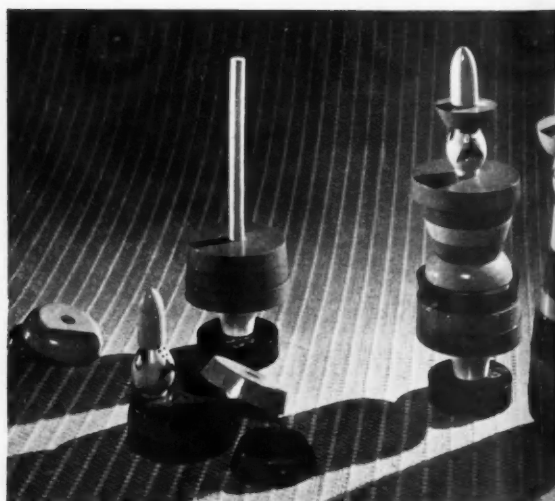
THE PUPPET ON THE RIGHT has simple controls specially designed for children to manipulate. Made by Pelham Puppets Ltd, Marlborough



REPRESENTATIVE OF BRITISH DESIGN in soft toys is the thoroughbred wire-haired terrier, below, a Panurge production by H. G. Stone and Co Ltd, EC2



THE MEXICAN BILL TOYS, below right, were designed by William Singleton for Nicoltoys Ltd, Robertsbridge, Sussex. Figures in various shapes can be built up by putting the brightly-coloured wooden discs on to the central rod in different orders



Mechanisation on the farm

by W. H. Cashmore, BA, NDA*

OVER THE PAST 50 YEARS, Britain has seen many changes in the design and use of farm machinery. Two world wars have had a decided influence on the pace of mechanisation, even though the land is still managed on long-established farming principles.

The greatest change has been the replacement of the horse by the farm tractor as the source of power. At first, the machinery used with tractors was of the horse-drawn type, with modified hitches. The early tractors were on steel wheels; it was not until pneumatic tyres were adopted, in the early 'thirties, that the tractor really came into its own. The pneumatic tyre made it possible to work on the land at speeds up to five miles an hour, and to use tractors for transport on any road.

The next important stage was the introduction of the mounted-implement principle, and the use of hydraulic control of such implements, which is now standard. This has resulted in simpler design and better control.

Improved design has made it possible to reduce considerably the weight of implements, a point which is most important when they are mounted on the tractor. Constructional methods developed in other branches of engineering production are now employed; modern welding technique has reduced the need for heavy castings, weight has been further reduced by employing pressings, tubular structure, and higher-quality materials such as light steel castings instead of iron.

*Condensed from a longer article by Mr. Cashmore which appeared in DESIGN No. 28



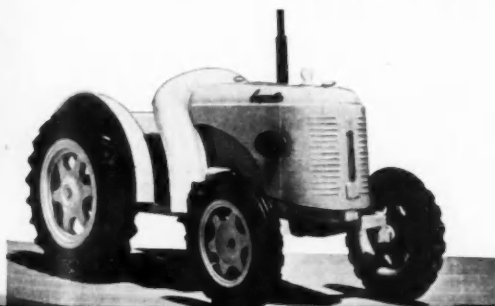
CRAWLER TRACTORS of American, French and Italian design have all been used in Britain: but this recent model, the Fowler Mark VF, is British in design and construction. The engine is a 40 b.h.p. Diesel

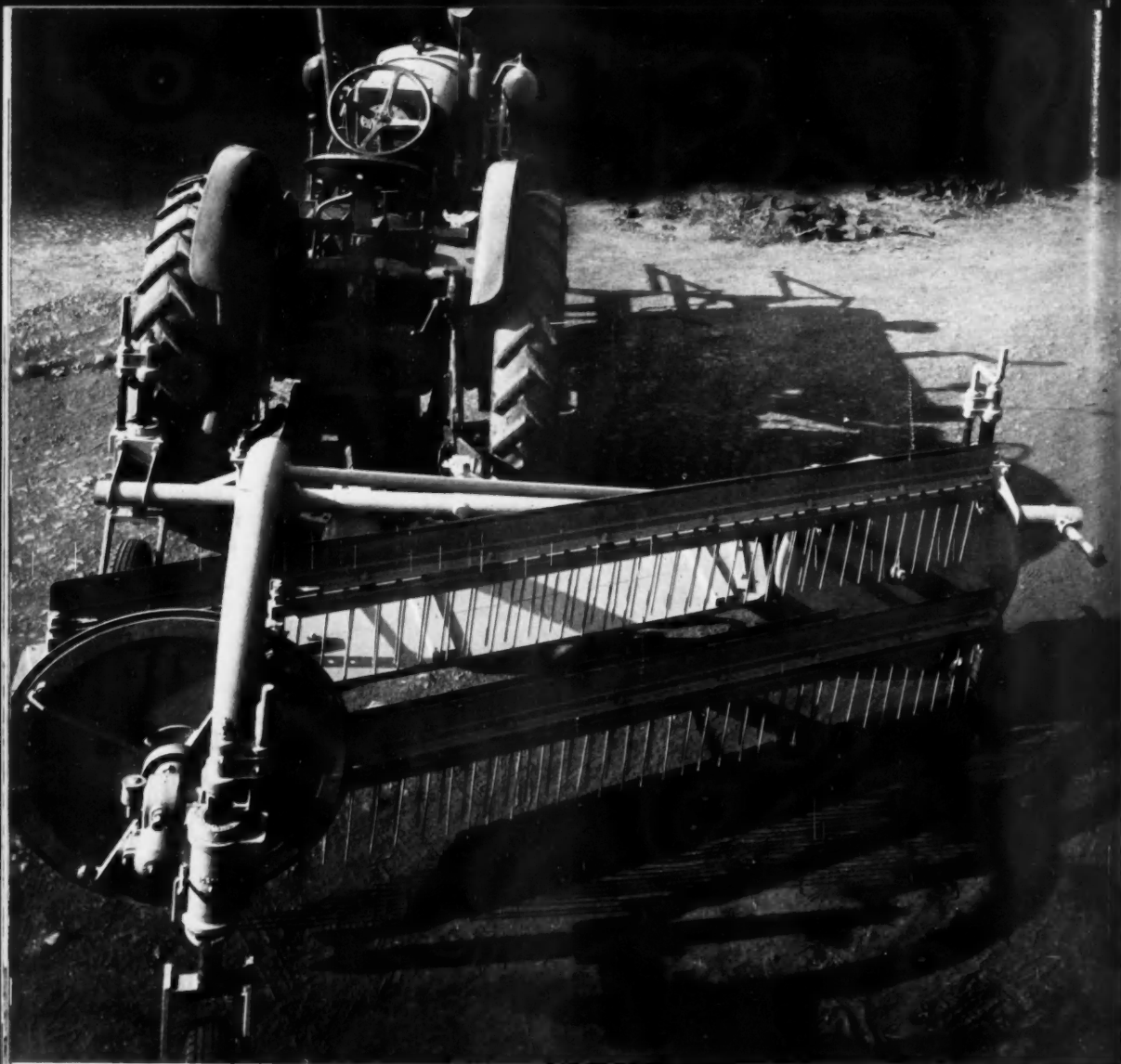
In recent years, machinery design in Britain has become more specialised in an effort to remove peak labour demands previously met by using casual labour. Many of the new machines either combine two or more operations or introduce entirely new techniques.

Considerable attention has been given to the appearance of farm machinery; given equal performance, preference is shown for the machine with the best appearance. Designers have taken advantage of changes in construction to achieve cleaner lines. Sheet metal is used to give protection against dust, dirt and the weather, but not for 'streamlining', a practice which has little appeal in agriculture.

Although the machines used in Britain today are more specialised, cover a wider range, and are built in sizes to suit the power of the tractor, many of the component parts are basically the same as those established many years ago. Thus the knottter on the binder, the reciprocating cutter-bar, and the plough mouldboard still predominate in spite of attempts to find better principles.

THE CROPMASTER TRACTOR, below right, is reproduced in miniature in the advertising model, left—moulded for David Brown Tractors Ltd (in cellulose acetate) by Universal Metal Products Ltd, Salford. Reduction in scale presents its own design problem: the elimination of minor detail while retaining basic shapes of the large original. The Cropmaster is made with either downswept or (as in the model) upright exhaust-pipe





NEW CONSTRUCTIONAL METHODS bring new shapes into farm machinery. Tubular members replace standard rolled sections, as pneumatic tyres have almost replaced flat iron rims.

Above is a combined side-delivery rake and tedder by W. H. Nicholson and Sons Ltd, Newark, which cuts a five-foot swath. It is designed to fold so that its transport width, for gateways and narrow lanes, is much less than its working width.

The rake is shown coupled to a Fordson Major tractor — the most widely used of all British tractors, and the most quickly recognisable: its colour scheme is dark blue and deep orange-red, the traditional colours of farm-carts in Essex where the Fordson is made

INCREASINGLY, implements are tractor-mounted, instead of being separate machines towed by the tractor. The fork-like device on left is an all-purpose loader by T. Baker and Sons, Compton, Berks, mounted on a Nuffield *Universal* tractor which provides power for lifting as well as mobility

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and



THIS ARTIFICIAL MANURE DISTRIBUTOR is another implement whose design has been affected by the special requirements of British farming. It is made in three box-sections, and the outer sections swing back at right angles to reduce the

overall width from 15ft 6in to 8ft 1½in for passing through farm gates. Developed by James Dickie and Co, of Ayr, in conjunction with the manufacturers, Massey-Harris Ltd, Manchester

THE SUSSEX TRUGS, below, are made by Thomas Smith of Hurstmonceux; split ash is used for the frame, split willow for the boards. In front of them are a Lawson trowel and a Skelton fork, both in stainless steel. The labour-saving many-bladed shears are made by the Flexa Lawn Mower Co Ltd, Woking. Each knife can be detached separately for sharpening. Against the watering can (by H. T. Shakespeare Ltd, Birmingham) are Wostenholm knives for pruning and budding. At bottom right is a recent addition to the Wilkinson Sword garden-tool range — the W448 flower-gathering shear, which cuts, prunes and holds flower stems in one single-handed operation. Its handles are finished in polychromatic blue.



Man masters machine design

by *A. Whitaker*, OBE, MIEE, F Inst P

THIS REVIEW OF modern British machinery affords an opportunity to observe the emergence of a new standard of values in engineering design. Engineering, after a precocious childhood of a hundred years, is coming of age and is discovering the desirability of combining ingenuity with grace.

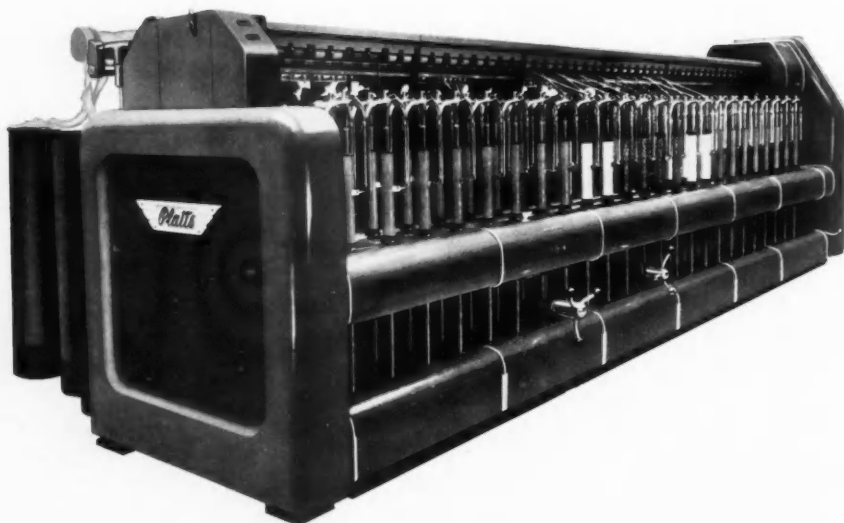
The machines of 1851 were functional novelties; they were designed and made by mechanically-minded craftsmen and, although novelties, embodied the qualities of an old tradition. In them was the seed of their own deterioration. They gave a new mastery of materials and made new classes of specialists the masters. Technical advance was thenceforward strong and steady, but traditional grace gave way to either a total disregard of form or a perfunctory sprinkle of misapplied decoration. The fatal facility of cast iron lent itself to decoration of the rustic-seat variety.

There was no real satisfaction for anybody in such casual grotesqueries and they languished, giving way to a phase of bleak disregard of appearance altogether;

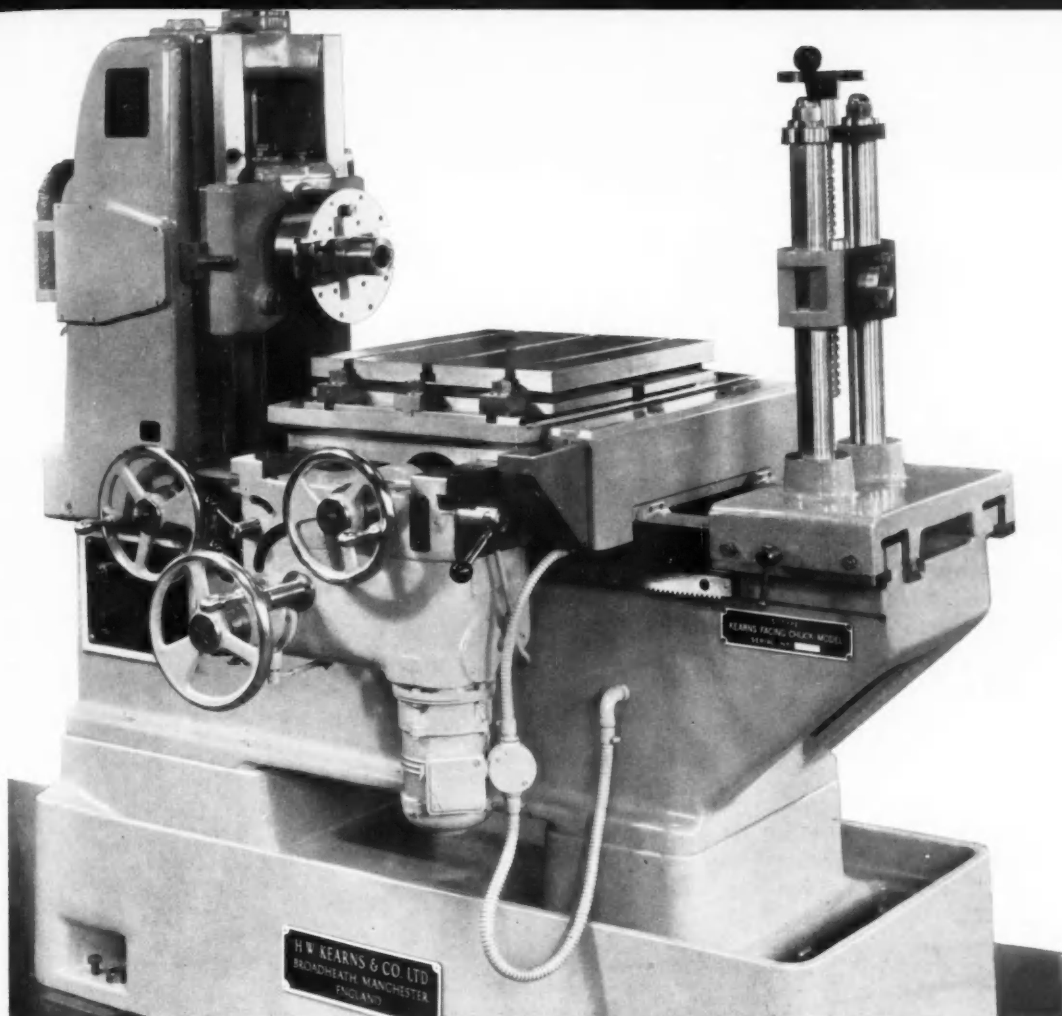
drab machines to be worked by drab people in drab factories.

Only in the last few decades has reaction come. It has necessitated a new approach to design. In engineering, with its ever-increasing complexity, design cannot be the function of an individual but develops from the harmonious operation of a team. Not one mind must be inspired but the brains of a group must evolve. This process is difficult of achievement but carries great promise. Individual design too often develops an individual style which in the hands of its master may be good, but in the hands of his disciples loses all its vitality and retains all its vices. Co-operative design may find it difficult to produce a masterpiece, but, if it can avoid the inelegant, it can surely avoid the banal.

A hundred years after the Exhibition in 1851 gave machinery its first international shop window, the engineering industry can look with some satisfaction at its coming-of-age products and claim that, in maturity, it will restore a tradition of quality.

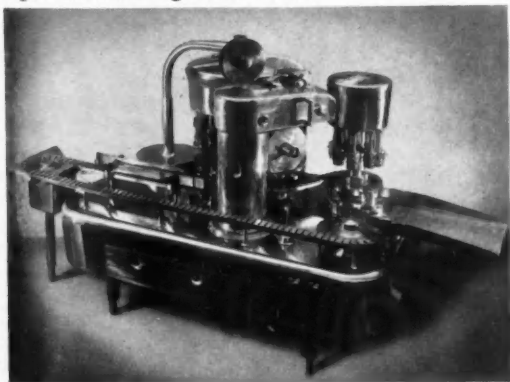


ONE OF THE latest types of cotton spinning machinery, the MS 2 high draft speed frame is designed to give precise control of individual fibres and of twist. The controls are simpler and operation is less noisy than with earlier machines. Made by Dobson and Barlow Ltd for Platt Bros (Sales) Ltd, Oldham

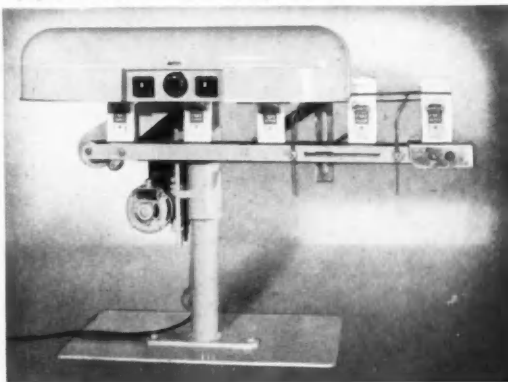


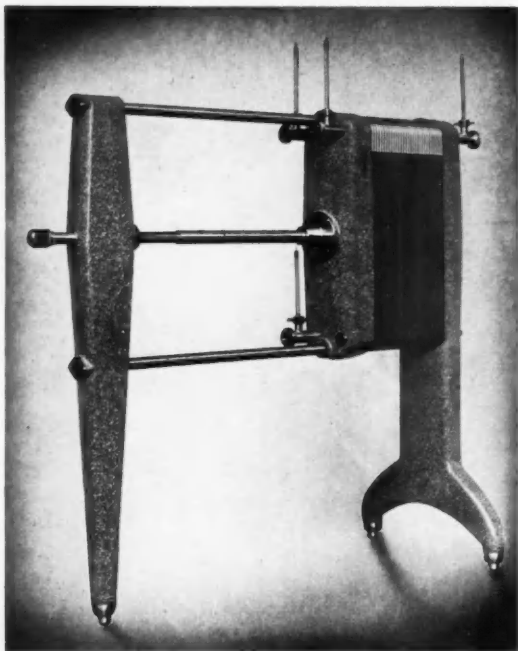
IN THE TOOL-ROOM or experimental shop, there is often a need for a machine capable of boring, milling or drilling to a high degree of accuracy. The Kearns Optimetric horizontal boring machine is designed for this specialised purpose. Its solidity of form inspires confidence — as does the attention which has obviously been given to small details of design such as the nameplates

IN THE MODERN DAIRY, bottles are filled by machines such as this, developed from an earlier model, by U D Engineering Co Ltd and Design Research Unit



IN THE FOOD FACTORY, this *Rotoplex* machine by Strachan and Henshaw Ltd, Bristol, is used for heat-sealing bags of paper and Pliofilm which keep moisture out and flavour in





REMINISCENT in its shape of abstract sculpture, the machine illustrated above serves a definite hygienic purpose; it is an APV *Paraflow*, used in the pasteurisation of milk and other liquids. Several of the pressings used in its construction are interchangeable with other machines in the APV range, thus keeping down the cost of production. Its three ball feet can readily be adjusted to make the machine stand level on an uneven floor



FAR FROM being confined to engineering works, machinery is with us in every kind of industry today — which is one good reason why the machine, as a part of our environment, should, at worst, be unobjectionable in appearance and, at best, can achieve real beauty

ONE OF THE MANY machines that may be used in making other machines (top right) — a Wilkins and Mitchell power press of 150 tons capacity, widely used in the sheet metal industry. Its rigid fabricated steel structure has eliminated the earlier type of cast-iron frame, and it requires a minimum of floor space in relation to the work done. The press is designed for simplicity of control. It cannot be operated when the guards are open, and the guards at the back of the press cannot be opened until the operator has opened those at the front

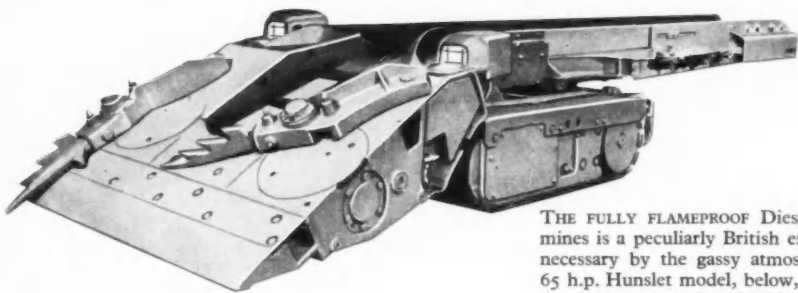
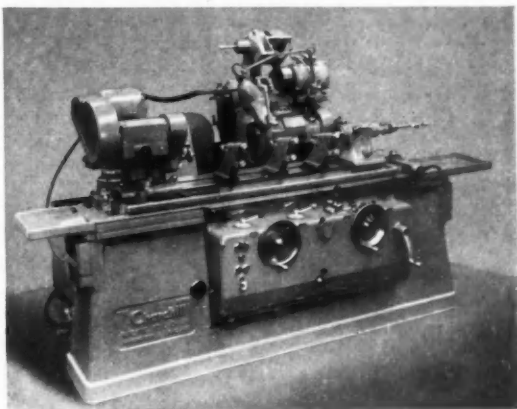
WITH ITS MECHANISM totally enclosed, the micro-precision drilling machine, right, is made by S. N. Bridges and Co Ltd, SW6 (designer, George Newington Bridges). Features include a floodlight and a built-in switch mounted on the side of the housing, which enables the operator to control the machine from the front



UNIVERSAL GRINDING MACHINE: The Churchill *PBW*, right, uses an apron which is standardised for several Churchill machines and built in quantity on line assembly

Design in the mine

THE 'SAMSON' LOADER, by Mavor and Coulson Ltd, handles up to 4 tons of loose coal a minute. Its gathering arms — seen in foreground — sweep the coal up the uninterrupted surface at the sloping end of the machine, and pass it on to a flexible conveyor, which carries it down to the far end (where it is loaded on to other conveyors or tubs or mine cars). Mounted on crawler tracks, each ten inches wide, the machine 'eats its way forward' into the heap it is loading



THE FULLY FLAMEPROOF Diesel locomotive for use in coal mines is a peculiarly British engineering achievement, made necessary by the gassy atmosphere of many mines. The 65 h.p. Hunslet model, below, is the latest in a series whose development was described in DESIGN No 15, p 21



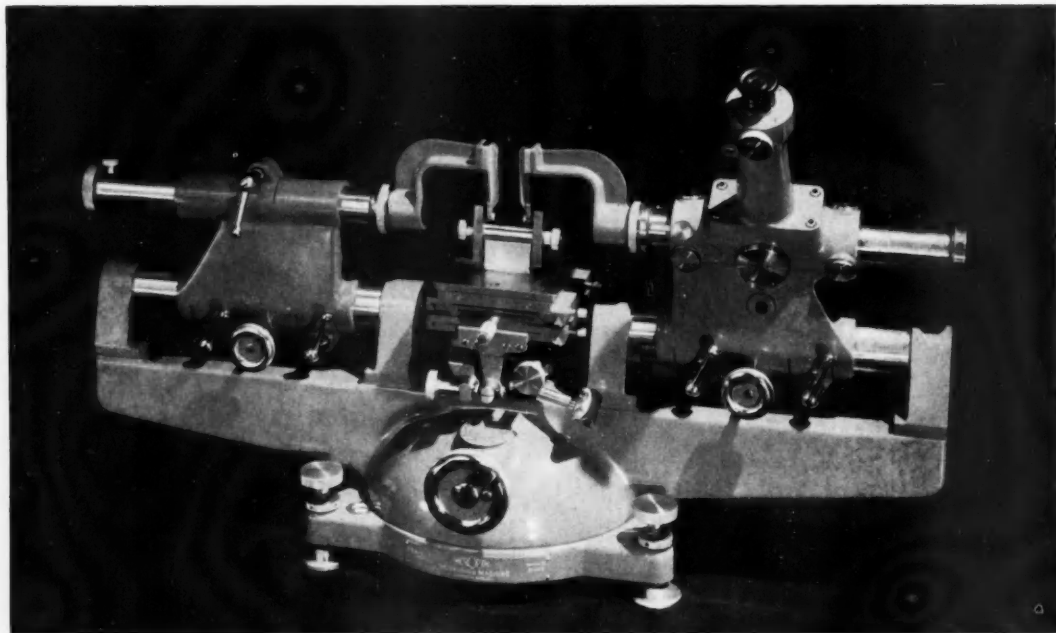


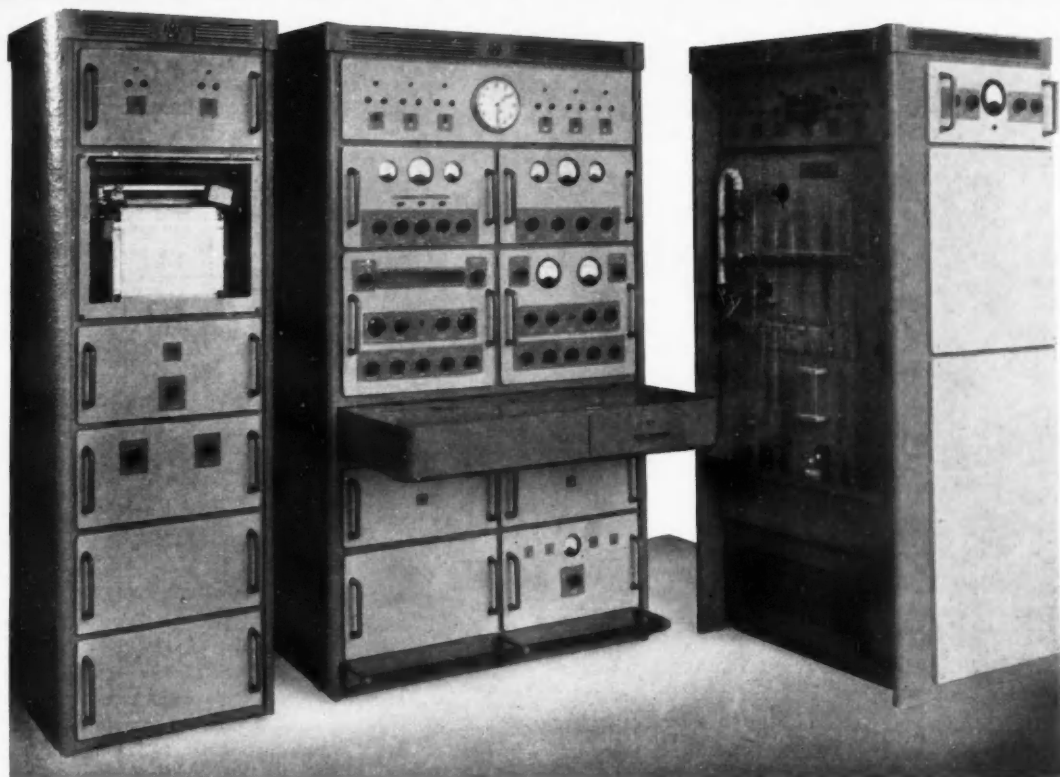
Instruments

THE INCREASING USE of scientific knowledge in modern life has brought scientific instruments out of the seclusion of the research laboratory into the factory—and, to a lesser extent, the home. The growing demand for instruments of many kinds has made it practicable to introduce new methods of production—*e.g.*, moulding and die-casting—which in turn have led to changes in appearance.

The housing of the new Oertling Constant chemical balance, left, designed by John Barnes, MSIA, is in marked contrast with the traditional wood-framed balance case. In the new design, the balance-arm has a constant load, the weights are automatically placed, and totals are indicated on a cyclometer-type index.

GROUPING A NUMBER of complex parts into an integrated whole is a task which frequently faces the designer in modern industry—and a task which is seldom more successfully solved than in the Watts Microptic horizontal measuring machine, below, an instrument that is impressive even in the layman's eyes. Designed by C. Godfrey, made by Hilger and Watts Ltd, SE5





FOR THE LABORATORY. The mass spectrometer is one of the fundamental instruments of atomic research. It is necessarily a complex piece of equipment, but the Metrovick design, above, can be handled by a semi-skilled operator.

TWO FOR THE FACTORY. Left, a flaw detector, recently re-designed by Kelvin and Hughes Ltd. The new pressed alloy case is finished in glossy grey enamel, instead of black as previously. Controls and carrying handles are mounted on deeply recessed panels to avoid damage. The Perspex-covered indicator is edge-lit to give clearer readings.

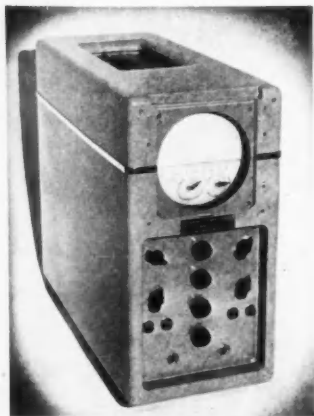
The Sigma inspection machine, centre, checks several measurements of a component at once; it can rapidly be changed over from one component to another. Coloured lamp signals at the top of the instrument show the dimension

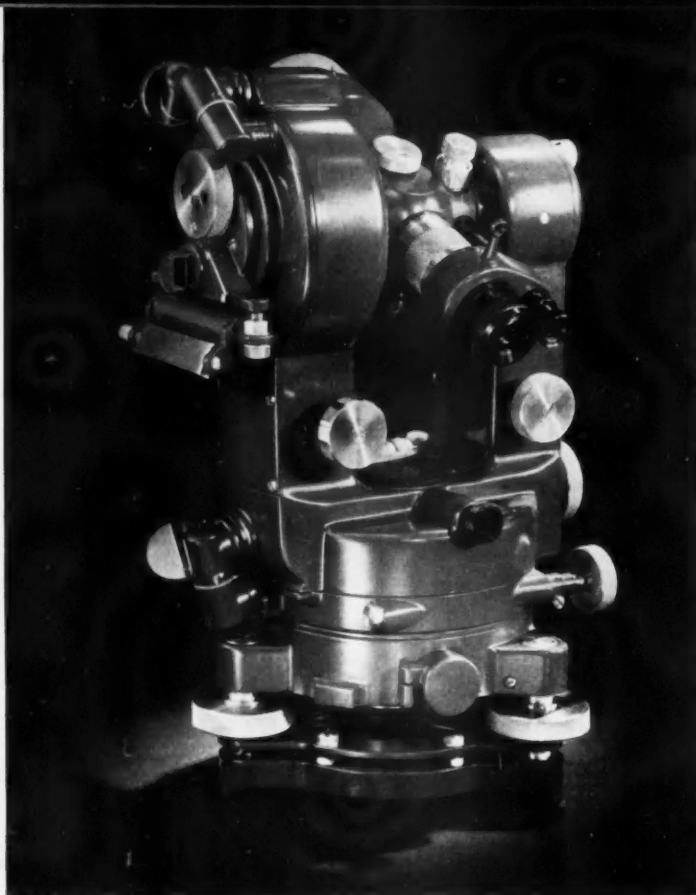
Despite its size, all the individual instruments can be observed from a seated position at the desk.

The unit system is evident in many details of this mass spectrometer's construction

in which any inaccuracy is found; the machine divides the objects checked on it into *correct*, *rectifiable*, and *reject*. Its sensitive measuring elements are enclosed in a Perspex-fronted compartment which protects them from dirt, knocks or unauthorised alteration of adjustments. Designers: J. Loxham and F. R. Boosey

FOR THE DRAWING OFFICE: an isometric drafting machine in steel, light metal and plastics — the Perspector Model A by Isometric Projections Ltd, Newport Pagnell





THE FINELY FINISHED instrument, on left, represents a current trend in theodolite design — towards greater convenience for the user. The knobs can be operated with a gloved hand in cold weather; they and all other parts are arranged in the most convenient positions as shown by long experiment. The Microptic No. 2, by Hilger and Watts Ltd, SE5

MANY OF THE newer instruments have shapes and names which are alike unfamiliar to anyone except their users. The apparatus, below left, is a Varley-Hermann focimeter, used in measuring ophthalmic lenses (by comparing them with known standards). Readings are taken from a scale on the eye-piece (top left). Designer, Dr F. Hermann; made by Varley Pumps and Engineering Ltd, NW10



THE INSTRUMENT below — technically, a laboratory type inspection polariscope — is used in the analysis of tension and stress in glassware, and in checking the flatness of glass surfaces where this has to be determined to a high degree of accuracy, *e.g.*, with optical glasses. The material to be inspected is viewed through the binocular eye-piece (top right). The finish — pale blue enamel — does justice to the lines of the instrument. Its frame is a light alloy casting. Designed and made by H. S. B. Meakin Ltd, SW1





Traditional car design at its best — the Rolls-Royce *Silver Wraith*, so often regarded as a symbol of British quality

Design in transport

by Harold F. Hutchison

THE FOLLOWING PAGES illustrate a bewildering variety of materials, of machines, of needs, of purposes, and of designs. Is it possible to weigh them all on one set of scales?

In the 'twenties of this century it would have seemed easy. We merely asked if a new design was 'fit for its purpose', and if the answer was clearly 'yes', then *ipso facto* the design was good. In the 'twenties of the nineteenth century, the critics would have been able to use aesthetic and functional weights which were standard and unchallengeable — although a critic braver than the rest might have been 'modern' enough to be thinking longingly of a touch of Gothicism in form and decoration. In 1851 they had no doubts — Gothic longings were more than fully satisfied. In 1951 doubts arise once again. Is functionalism enough? Is applied decoration wrong? Is right decoration merely a variation of the form? Is there enough study of pure decoration? When we do decorate, do we decorate wisely and well? And by what standards can we judge the wisdom and well-being of any applied art?

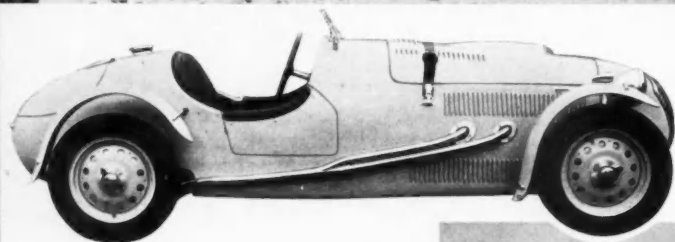
It is in considering an answer to the last question that light may break through the fog of argument.

To attempt a detailed critical survey of so wide a range of vehicles and vessels in this small space is impossible. But it is suggested that if the criterion of *sincerity* is applied to design in transport there is, in this almost ethical viewpoint, a useful ready reckoner by which so much variety may be fairly measured. It is a criterion which can be applied to a machine's

function as well as its decoration . . . and let those who still say that functionalism is enough, study that most useful of all inventions — the wheel. Throughout the centuries the spirit of man has refused to consider the wheel, the basis of all land transport, as good if it merely served its purpose. With flint, with metals, with bow-knives and draw-knives, and finally with its own specialised tool the spokeshave, man has refined and ornamented the wheel, and in the great days of horse-coach transport he triumphantly used line paint and gilt unashamedly and magnificently to decorate it.

Decoration is one of the joys of life, and like other joys it can be abused, but that is no excuse for surrendering to aesthetic prohibitionism. Cars, trains, and aeroplanes all provide exercises in decoration; their outlines may be controlled by engineers, but in exterior lines, interior fittings, layout and *décor* there is a wide field for the sincere application of the decorative to the functional. Our industrial designers have not yet found completely satisfactory answers. It is not their fault. In the fine arts, in architecture, in music, even in the drama and in literature, this is an era of flux. Modern technical achievement has outstripped the capacity to control it — to design it — and, until new standards are stabilised, decoration is as ephemeral as current fashion.

Meanwhile, as the following pages clearly prove, there is a 'purposive striving' (which was a great psychologist's definition of 'evolution') and every sign that 1951 may herald a new 'period' of great distinction with standards which may be able to stand.

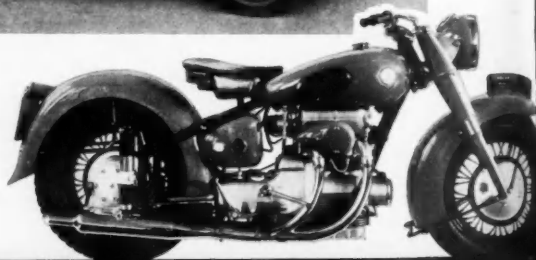


ENTHUSIAST'S CAR — for the enthusiast with a fairly long pocket. The Frazer-Nash Le Mans Replica — aptly described by *The Motor* as 'a light two-seater of classic style' — is a competition model with bucket seats, aero windscreens, detachable cycle-type mudguards, outside exhaust system. The engine is Bristol-built

FAMILY CAR: this is the four-door saloon on the Morris Minor chassis — of unpretentious appearance, surprisingly roomy in its bodywork. Integral construction of body and chassis is a feature of the Minor's design contributing to its lightness and its economical fuel consumption. At present only the two-door saloon is available in the home market



UNIQUE IN MOTOR-CYCLE DESIGN is the Sunbeam S7. Its reassuringly smooth lines are derived from unit construction of engine and gearbox, outside tyres, shaft instead of chain drive, and good proportions of such parts as front forks and exhaust pipes



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THE RACER AND THE TOURER. Extremes of cycle design are shown here. On left, the *Avant Coureur* lightweight racing cycle by Claud Butler, SW4. The frame, of Reynolds 531 alloy tubing, weighs 7½ lb. Below, Raleigh's *Superbe Dawn* tourist model incorporates such accessories as electric lighting, three-speed gear with handlebar control, enclosed chain, hinged strut for parking, and capacious luggage bag

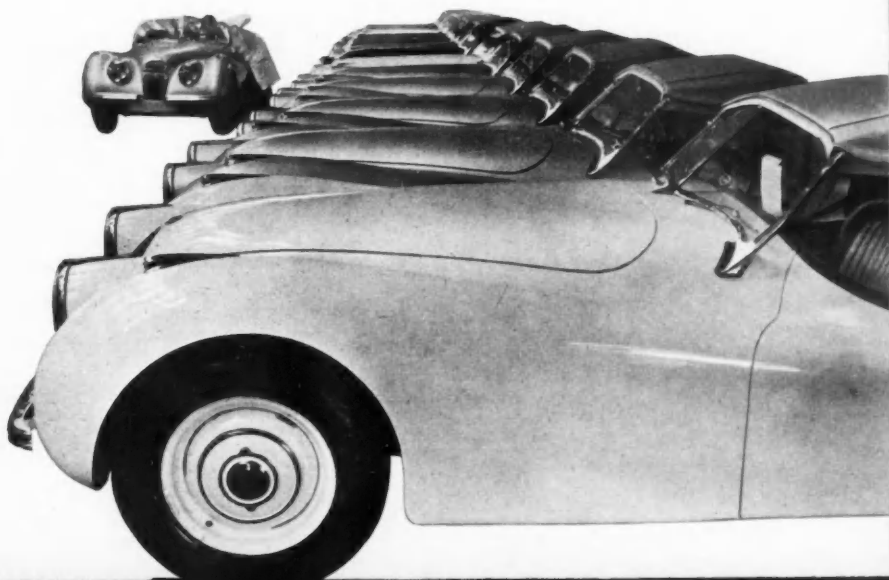


FIRST POST-WAR BRITISH CAR to be built in any quantity was the Armstrong-Siddeley (left), of which the *Architects' Journal* said in 1946: 'In outward appearance at least the car is really new. . . . [It] still looks English'—a comment which is equally valid in 1951. The body style shown here is the *Whitley* four-door four-light saloon

Motor cars and cycles

LINED UP FOR EXPORT: The Jaguar XK 120 is an award-winning sports car, firmly in demand in the American market, whose good looks are not deceptive: the 3½-litre engine gives a speed of 132 m.p.h.

Apart from its own merits, the XK 120 served as forerunner of Jaguar's Mark VII saloon, using the same engine. American trade buyers placed \$20,000,000 worth of orders for the Mark VII when it was introduced on the eve of the 1950 Motor Show





TROLLEY BUS FOR PORTUGAL: Park Royal Coachworks' body on a Sunbeam chassis. The large area of windows is notable



MORRIS-COMMERCIAL lorry: a new model introduced at the 1950 Commercial Motor Show

Commercial motors



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THE ALL-ALLOY, non-corrosive body of this meat van is designed and made by E. W. Campner and Sons Ltd, Leicester



ELECTRIC MILK-FLOAT, by Lansing-Bagnall. The driver can easily step in and out of the low-floored cab

ELEVEN FEET WIDE and proportionately long, the Thornycroft *Mighty Antar* (below) is the largest tractor built in Britain. Its purpose is to carry oil pipes across deserts or roadless territory.

The *Antar* has been built in quantity for the Iraq Petroleum Company. Its engine is a 250 h.p. Rover *Meteorite* Diesel. For smooth running in very hot climates, two radiators are fitted, side by side. With semi-trailer attachment, the tractor can carry pipes up to 93 feet long



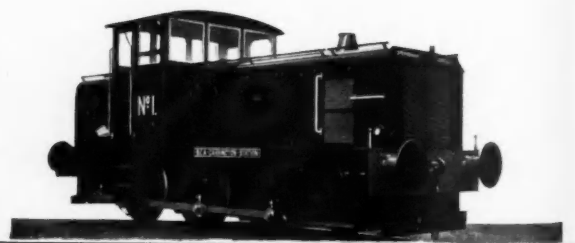
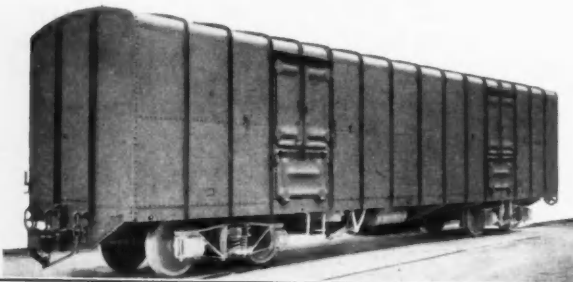
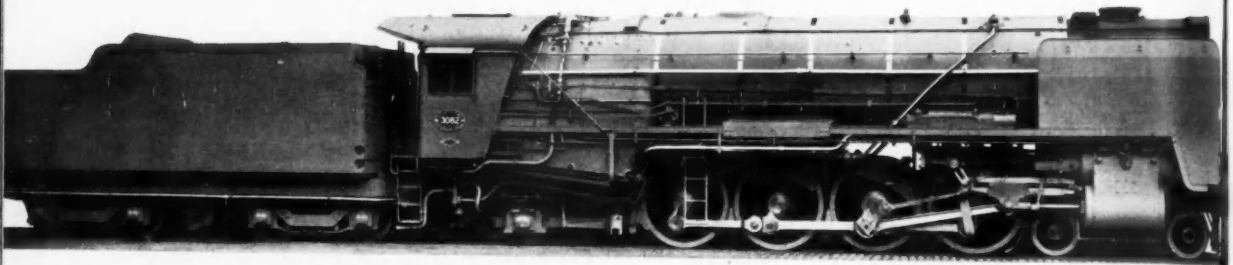
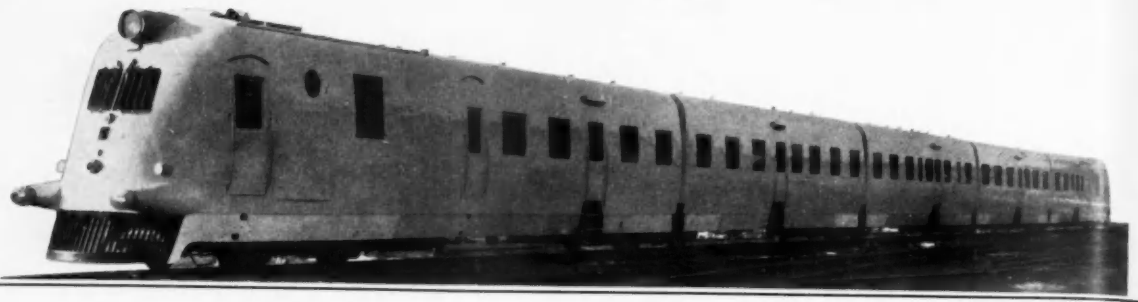
LONDON COUNTY COUNCIL and the Daimler Company were jointly responsible for the design of this low-loading ambulance, now used by several other Councils—e.g. (above) East Riding of Yorkshire



THE FULL-WIDTH FRONT is accepted without compromise in this touring coach by Windovers Ltd on an AEC chassis



NEW FRONTAL TREATMENT for Birmingham buses, originated by the City Transport department and here seen in a Crossley 54-seater, is designed



RAILWAYS

DIESEL-ELECTRIC: one of 19 trains being built by English Electric for the Egyptian Railway Administration, intended to skim the cream of the Cairo-Alexandria passenger traffic. The coaches are all-metal; each train includes a buffet with cooking and refrigerating equipment, and air-conditioning plant for the first-class accommodation, right. Bodywork by Birmingham Railway Carriage and Wagon Co Ltd



FOR SOUTH AFRICAN RAILWAYS, Britain has designed locomotives of great power despite the limitations imposed by the narrow gauge (3 ft 6 in). Left, one of a series built by the North British Locomotive Co Ltd, Glasgow. The numerous external pipes are accessible for maintenance by semi-skilled labour; they may seem unsightly to English eyes, but it is significant that, in a comment on British Railways' new standard locomotives, *The Times* (31 January 1951) notes that 'more pipe-work is exposed to view than on the old types'

A HIGH STANDARD of design has long characterised London Transport rolling stock. Fluorescent lighting and wide windows are characteristics of the post-war 'R' type carriages, right

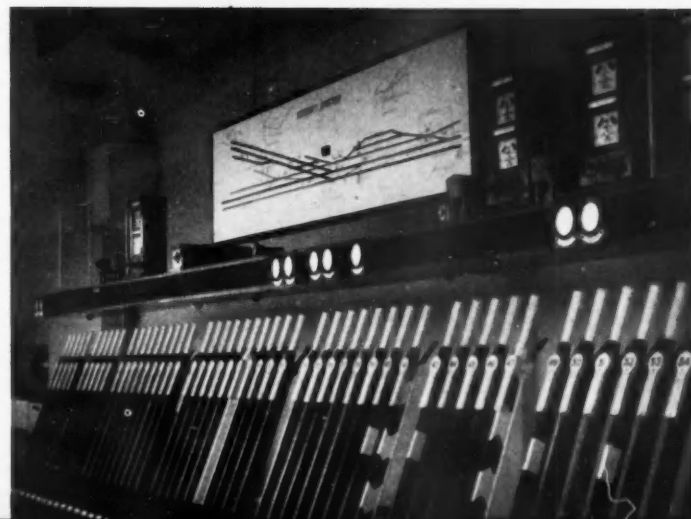


IN THE GARRATT TYPE of locomotive, one boiler provides the power for two separate sets of driving-wheels. They are pivoted separately so that the locomotive can, despite its great length, take curves of reasonably small radius. The Rhodesian Railways' example was built by Beyer Peacock and Co Ltd at Gorton, Manchester. This photograph (left) is taken from an exhibition scale model made by Bassett-Lowke Ltd, Northampton, with working parts electrically operated: a tribute to a distinctively British type of locomotive design, and at the same time to British craftsmanship in modelmaking

ALL-STEEL goods vehicles are designed and made in Britain for overseas railways: the van, extreme left, was built in 1947 by Hurst Nelson and Co Ltd, Motherwell, for Tanganyika

LEFT, THE STEPHENSON-CROSSLEY 330 h.p. Diesel-mechanical shunting locomotive, built by the historic firm of Robert Stephenson and Hawthorns Ltd for the British Electricity Authority

AN INNOVATION in British Railways' signal-boxes is the use of white plastic covers on signal lever handles—to give a better grip, to render the handles easier to keep clean, and to show up the position of levers in poor light





JET PROPULSION means a modification of the formerly accepted aircraft shapes. Engine nacelles are smaller and less widely spaced; the pronounced sweep-back of the wings is evident (even in this view, which minimises it). The

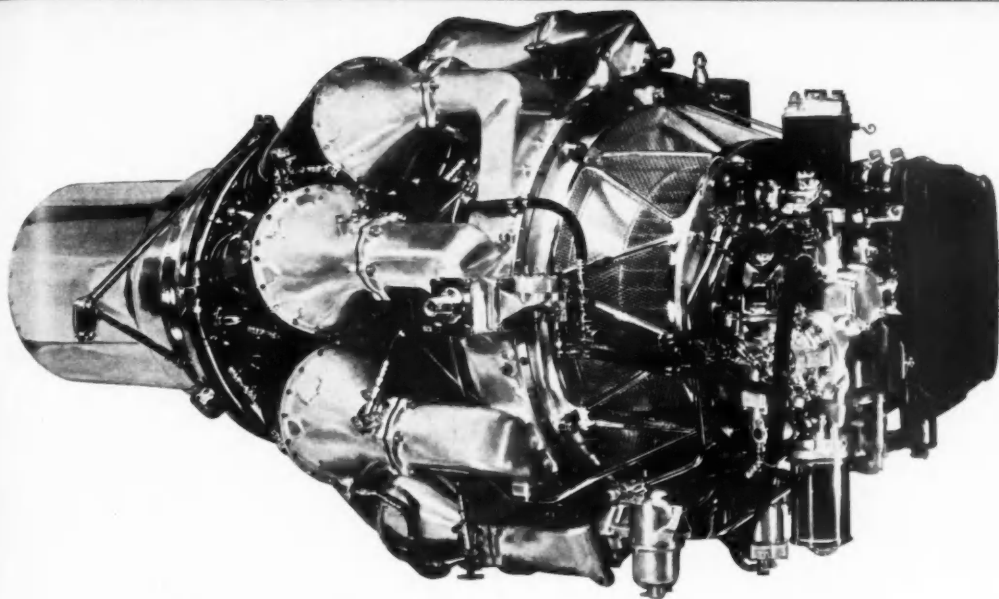
machine is a de Havilland *Comet* in the new white, blue and silver colours of British Overseas Airways Corporation. The Corporation plans to put 14 *Comets* of this type into service shortly, with higher-powered long range *Comets* to follow

Aeroplanes and aero-engines

TURBO-PROP: The 40-seater Vickers *Viscount* air liner, with Rolls-Royce *Dart* engines, was the first jet-propelled air liner to go into passenger service—between London and

Edinburgh during the 1950 Edinburgh Festival. Its lines have something in common with the smaller Vickers *Viking*, which is already widely used in several continents





TURBO-JET: The engine above, impressive even to the layman in its compact powerfulness and in its superb workmanship, is the *Derwent*, designed and made by Rolls-Royce Ltd



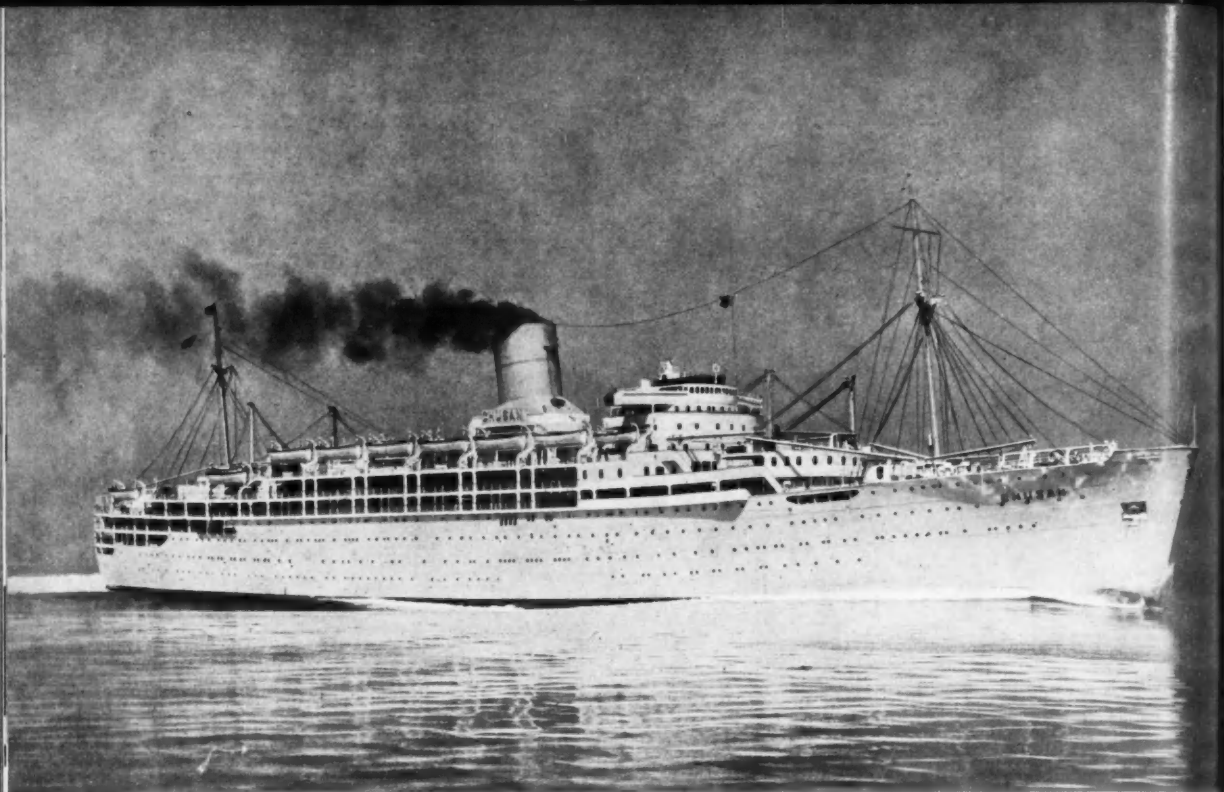
PISTON ENGINES still power the majority of commercial aircraft. The *Alvis Leonides* can be fitted normally in light transport machines (e.g., the *Prince*, below) or mounted horizontally, as on right, in helicopters.



One of the nine cylinders of this engine is seen in the close-up view, left

THE THREE AIRCRAFT shown on these pages are typical of British design in three different fields—'pure' jet, turbo-prop and piston-engined transport 'planes. The piston-engined example, below, is the Percival *Prince*, a 6-8 seater for feeder-line service, with two *Leonides* engines. A point in favour of its high wing position is that passengers have an uninterrupted view downward and to the side





SHIPS

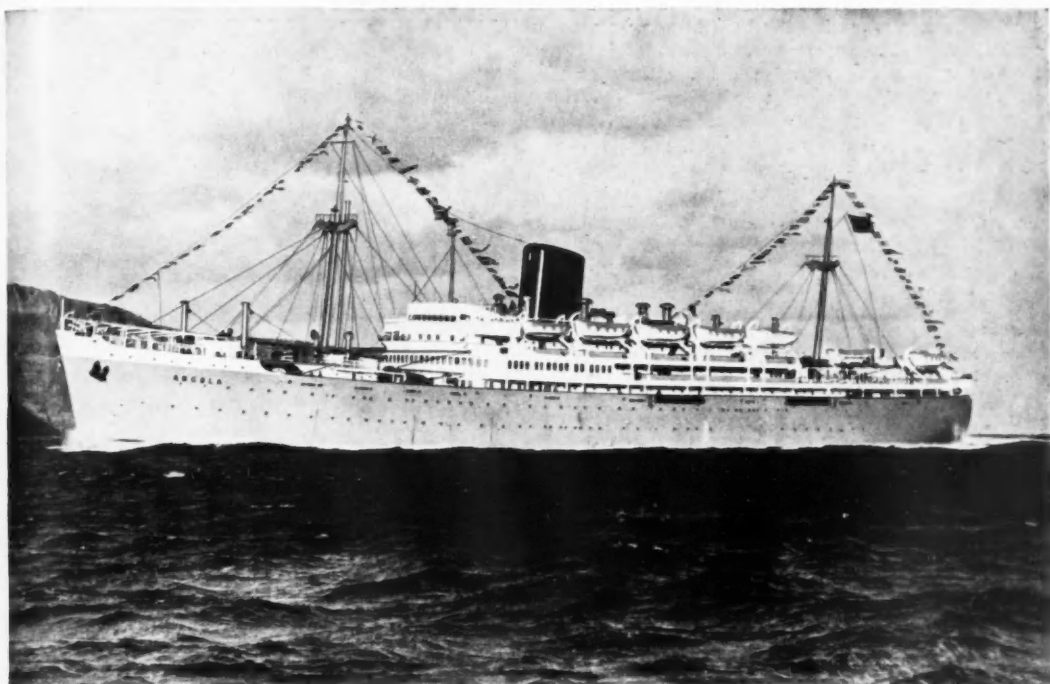
INTERIOR: The first class lounge of the Orient liner *Orcades*, furnished to the design of Brian O'Rorke, RDI, FRIBA, FSIA, who was responsible for the interior decoration of the whole ship as of other recent Orient Line ships



EXTERIOR: The *Chusan* is a twin-screw passenger liner for the P and O service between Britain and the Far East: built by Vickers-Armstrongs (Barrow) Ltd. Her engines are twin-screw steam turbines, and she is the first large ship (24,215 tons) to be equipped with the Denny-Brown stabiliser

SHIPS' FURNITURE: This writing-room chair, by Joseph Johnstone Ltd, Lochwinnoch, won first prize in the 1950 ships' chairs competition organised by the Scottish Committee of the Council of Industrial Design





PASSENGER AND CARGO LINER: The *Angola* was built by Hawthorn Leslie and Co Ltd, for the Cia. Nacional de Navegacao, Portugal, for service between Lisbon and West, South and East Africa. Her Diesel engines develop 13,000 b.h.p. Twin screw. 13,016 tons



TANKER: Swan Hunter and Wigham Richardson Ltd, Wallsend, built this new Shell tanker, the *Velutina*, for carrying crude oil between Middle East oilfields and new refineries in Britain. With a tonnage of 18,619, she typifies the post-war trend of tanker design which favours much larger ships than before. Ten similar ships for British tanker fleets are in service or under construction

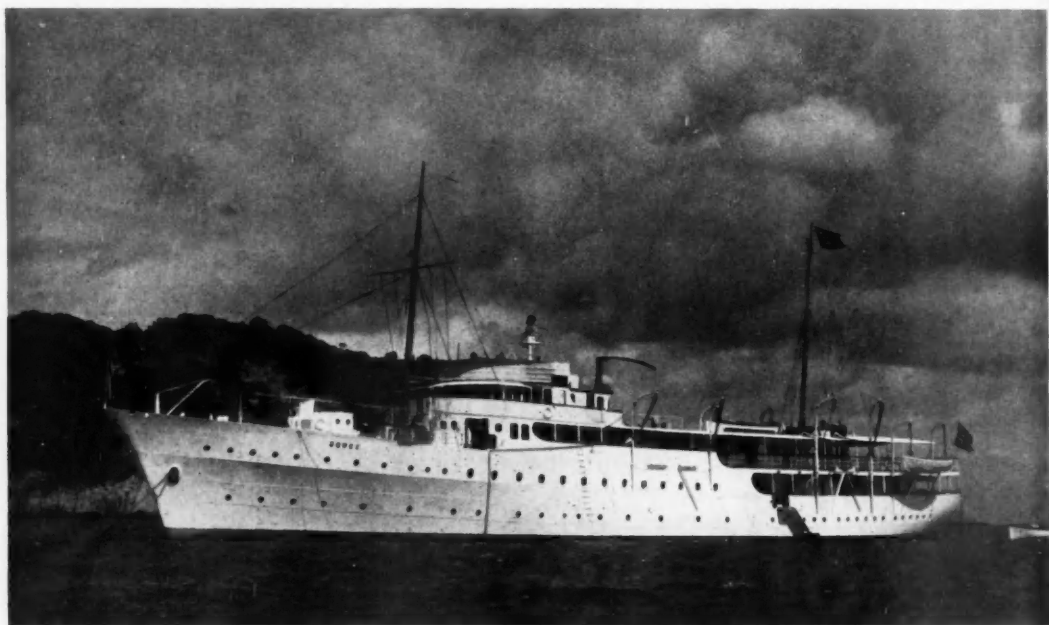


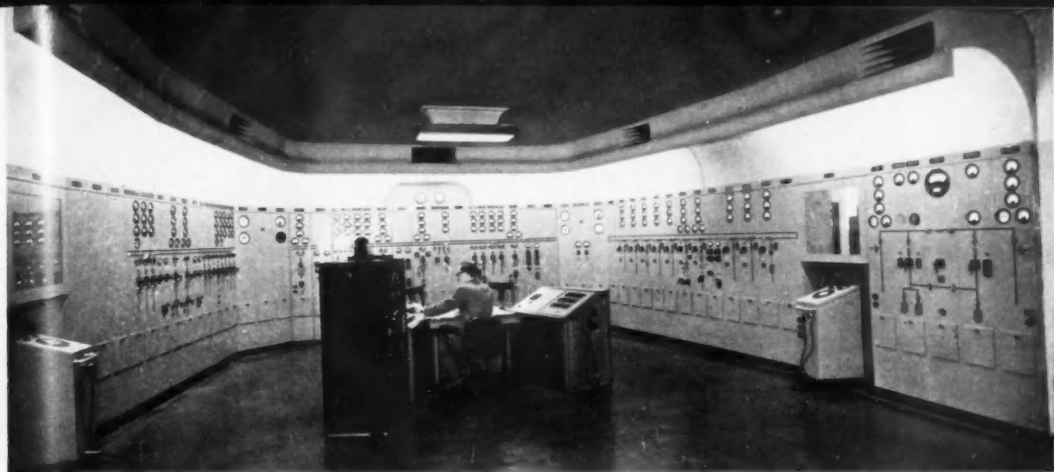
CUNARD: The *Caronia*, intended for North Atlantic passenger services and for cruising also, was built by John Brown and Co Ltd. Her speed is 22½ knots. A single funnel is still unusual in so large a ship (34,183 tons; length between perpendiculars 665 ft.). The four ships on this page and opposite typify post-war British achievement in four different branches of shipbuilding

NEW METHODS of boat building have been pioneered—successfully—in the Fairey 12-ft. sailing dinghy, right. On a mahogany main frame, she has a skin and decking of plywood, moulded under pressure and resin-bonded; her spars are of light alloy tubing. Since the design went into production in 1947, over 800 boats of this type have been built. Designer, Uffa Fox

UNCONVENTIONAL MATERIALS are used also in the Viking 7-foot pram dinghy, below; she is built of corrosion-resisting aluminium alloy, combining durability with lightness

THE MOTOR YACHT 'NORGE', at foot of page, was built by Camper and Nicholson's Ltd, Southampton (designer, C. E. Nicholson, OBE, RDI) in 1937; after war service she was reconditioned and presented by the Norwegian people to King Haakon in 1948. She is perhaps the most luxurious yacht afloat today. Equipment includes refrigerating plant, electro-hydraulic steering gear, Sperry radar

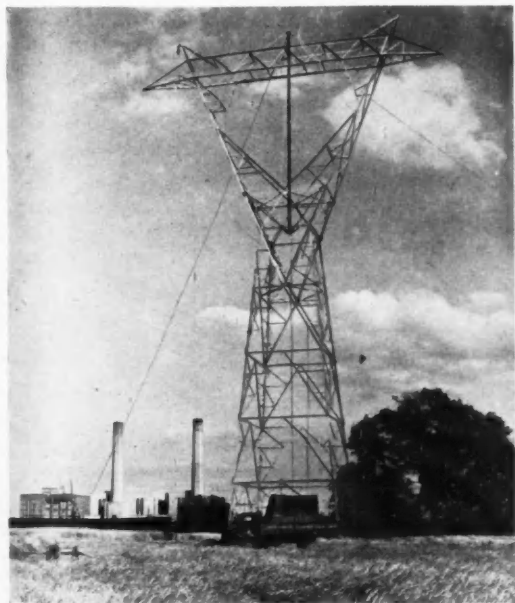




ORDERLY COMPLEXITY in the central control room at Newton Abbot Generating Station (British Electricity Authority SW Division). Centre desk gives a view of all panels. Equipment

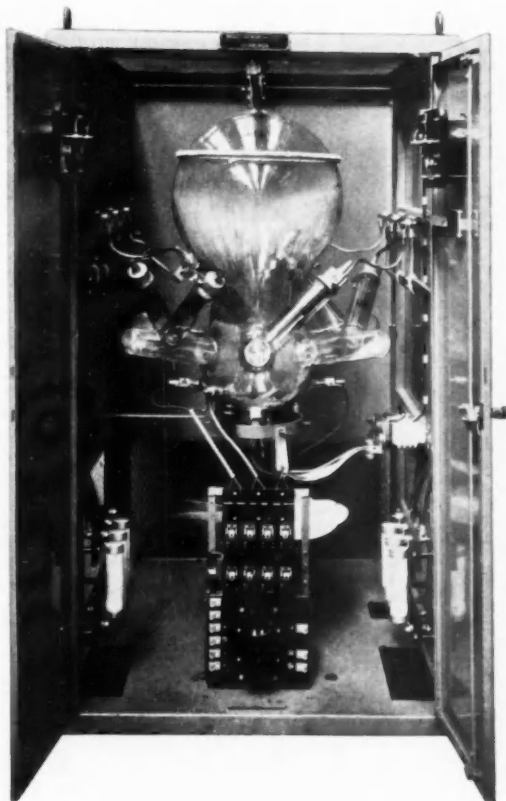
adjoining it is for interconnection with the Area Control Centre, and with the turbine room and boiler house. Makers, British Thomson-Houston Co Ltd, Rugby

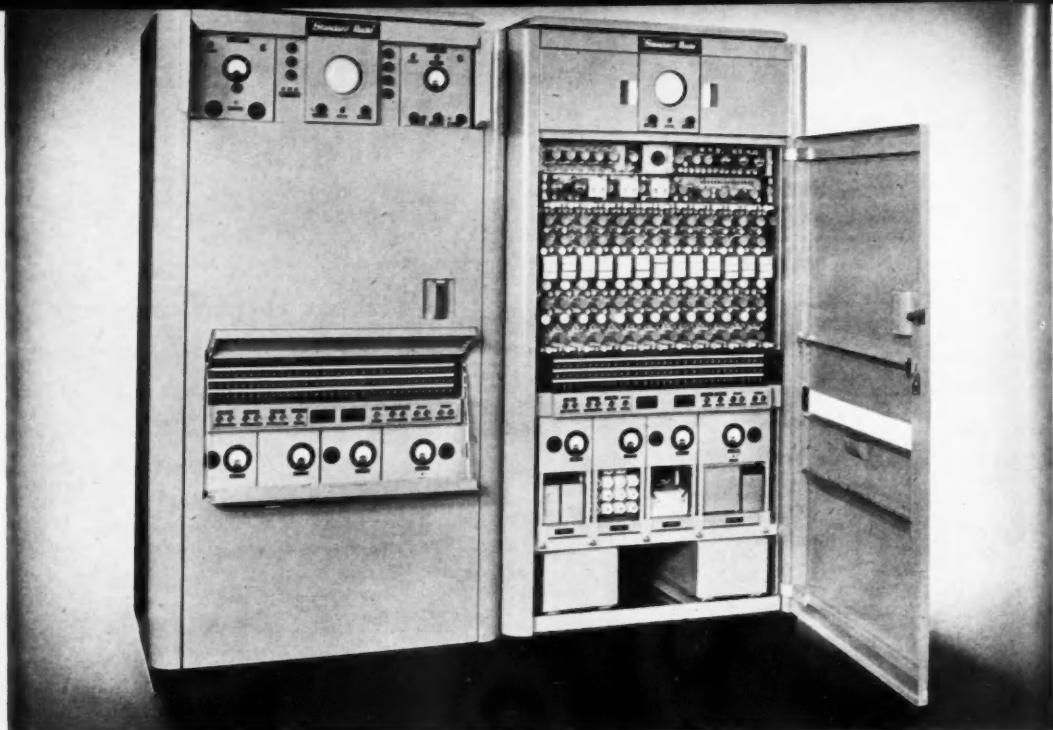
POWER



PATTERN FOR POWER: waisted transmission-line tower for BEA's new super-grid, fabricated by Painter Bros Ltd, Hereford, for the main contractors, British Insulated Callender's Construction Co Ltd

ABSTRACT COMPOSITION with a concrete purpose: glass bulb mercury arc rectifier by Bruce Peebles and Co Ltd, Edinburgh, for use with a 6,000-volt transformer



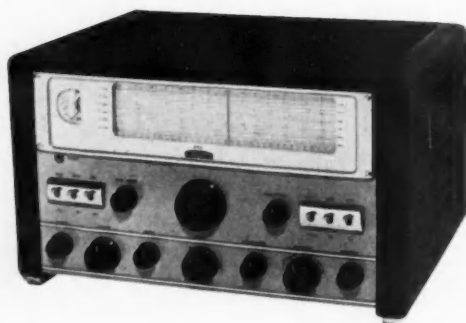


WHEN TELEPHONE ENGINEERS come up against an obstacle such as a marsh, estuary or mountain, they often find it better to install a wireless link rather than carry their lines across it. The Standard Radio installation shown above (technically, VHF Time-sharing Multiplex Link Equipment) is a self-contained radio station for one end of such a link, transmitting and receiving calls on 24 lines

Communications

THE TWIN-CHANNEL MONITOR, right (described more fully in DESIGN No 16), is designed to control the operation of two 35-millimetre film projectors used for film scanning for transmission by television. By Cinema-Television Ltd, SE26

BUSINESSLIKE RADIO SET, below, is GEC'S general purpose communication receiver, BRT 400, intended for news agencies, embassies, Services and commercial users for whom quality of reception with easy but accurate tuning is essential



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ACKNOWLEDGMENTS

COVER DESIGN by *Leonard Beaumont*, FSIA

PHOTOGRAPHERS INCLUDE:

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Dennis Hooker and the Council of Industrial Design photographic studio (colour pictures of fabric, p 26, and carpets, p 28; irons, p 34; sports goods, p 51; West African fabrics, p 63, etc)

Wren Studios Ltd, SE1 (colour illustrations of pottery; pp 39, 40, 41; necklets, p 66, etc)

ARRANGEMENT OF FABRICS on p 25 by *Eric E Lucking*
PERFUME and toilet water bottles in room illustrated on p 17 from *Elizabeth Arden Ltd*, W1 and *Mary Chess Ltd*, W1 respectively

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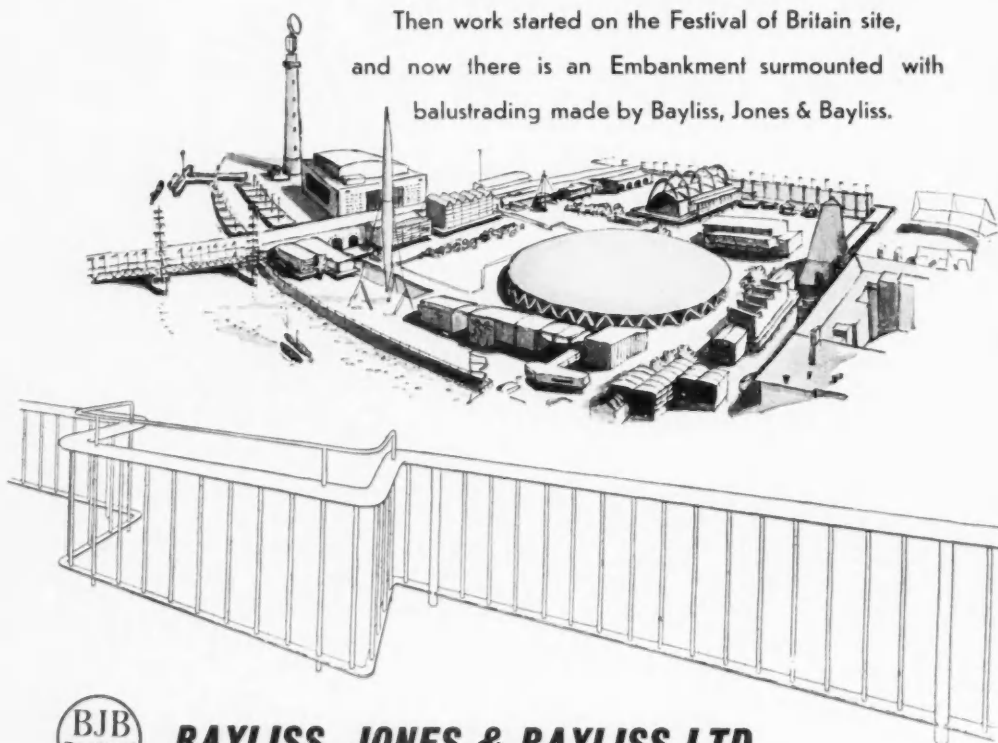
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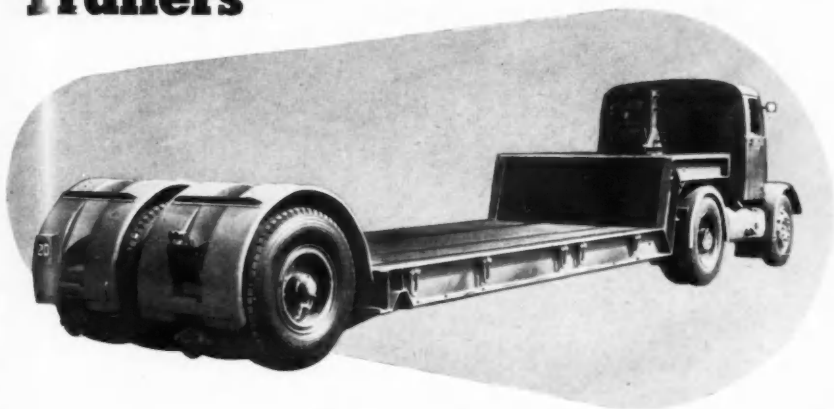
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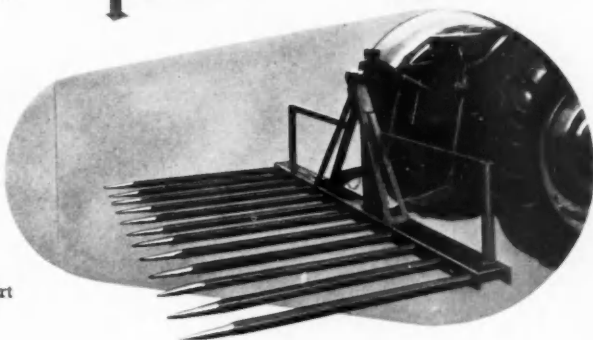
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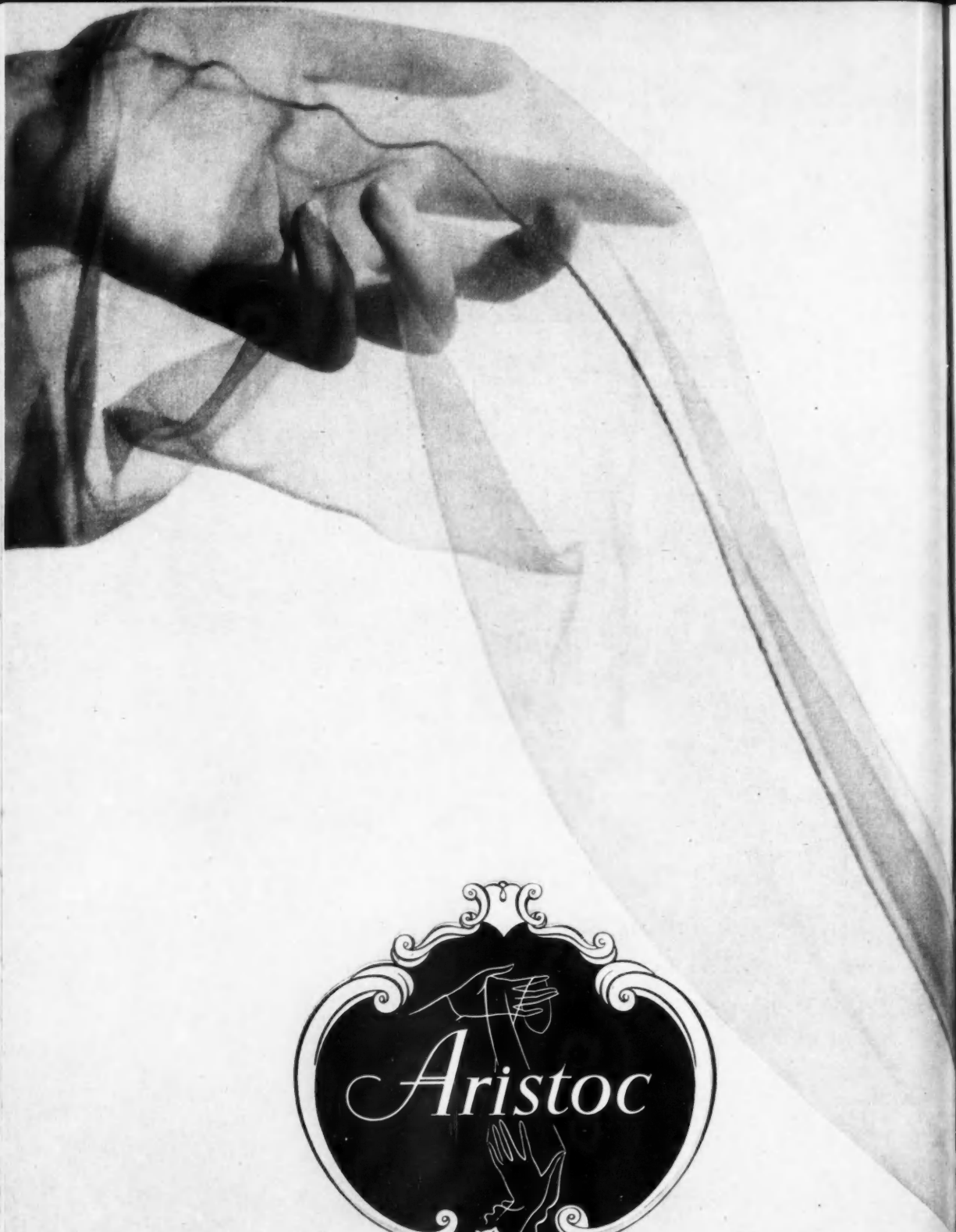
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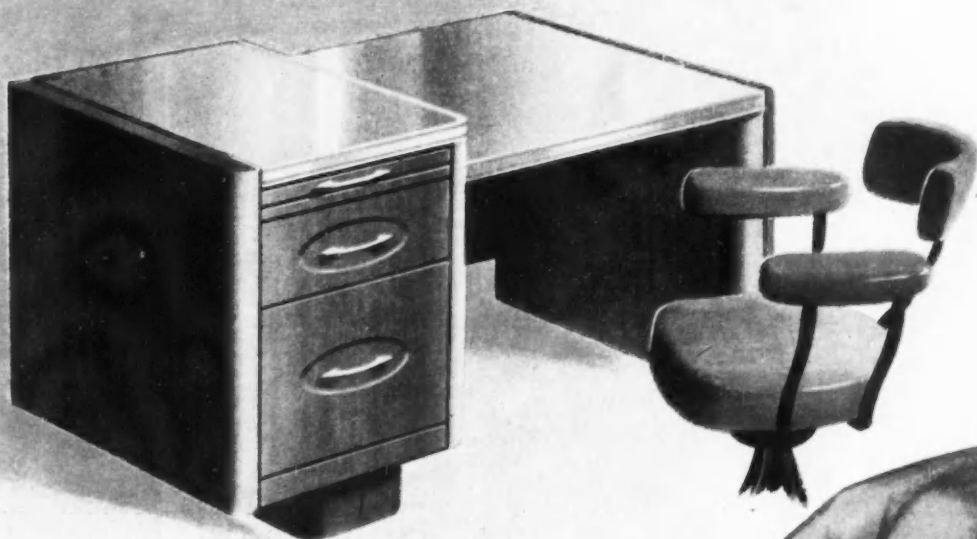
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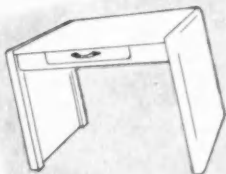
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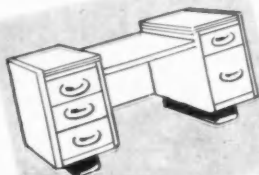
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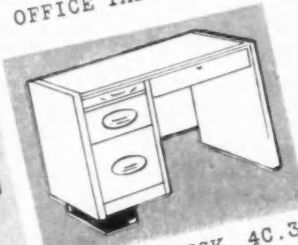
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TYPIST'S DESK 5W.30.



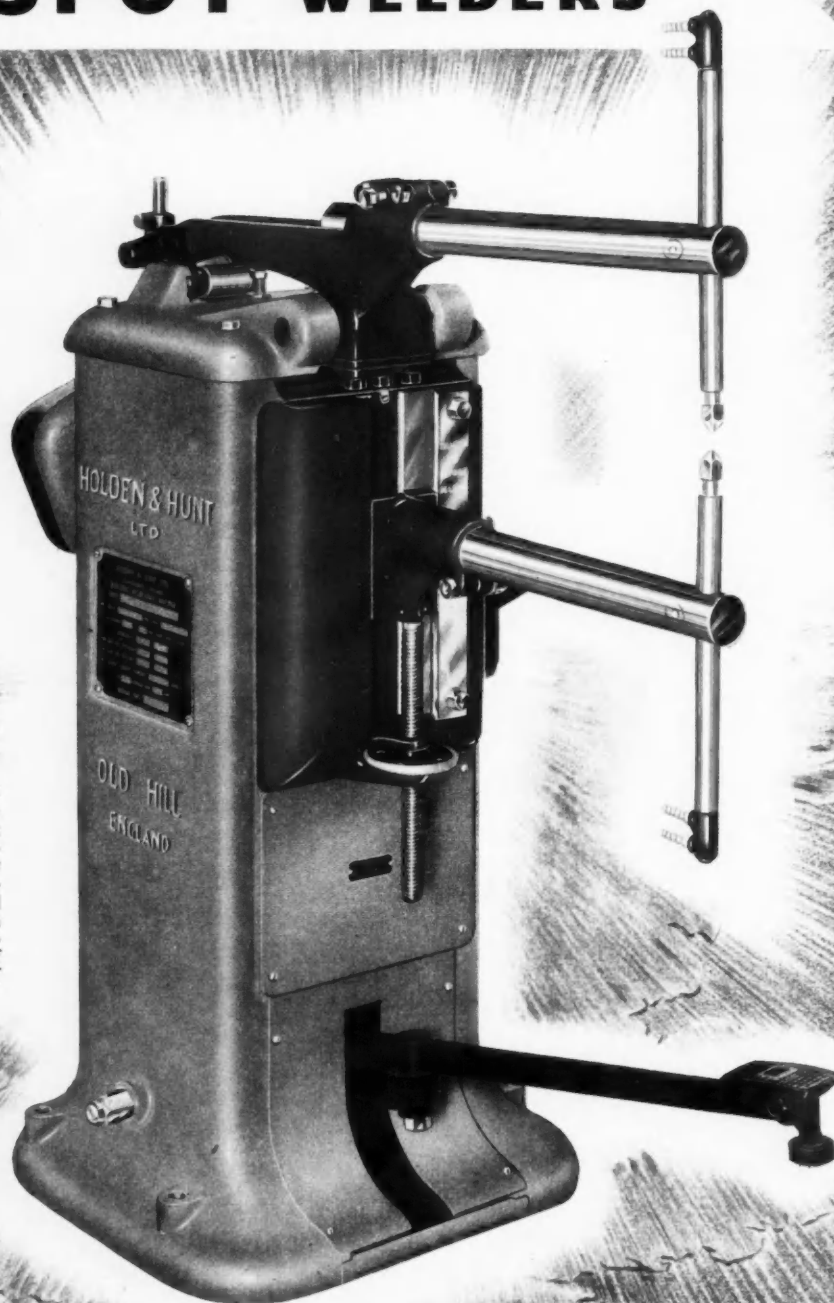
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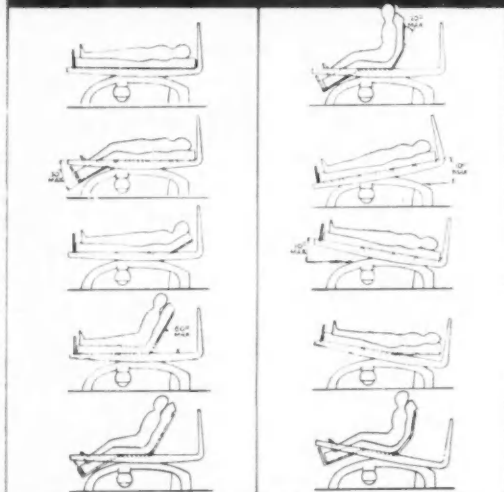
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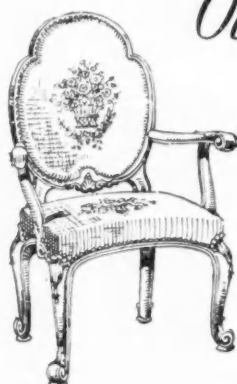
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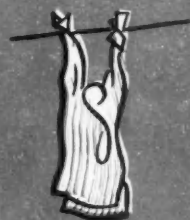
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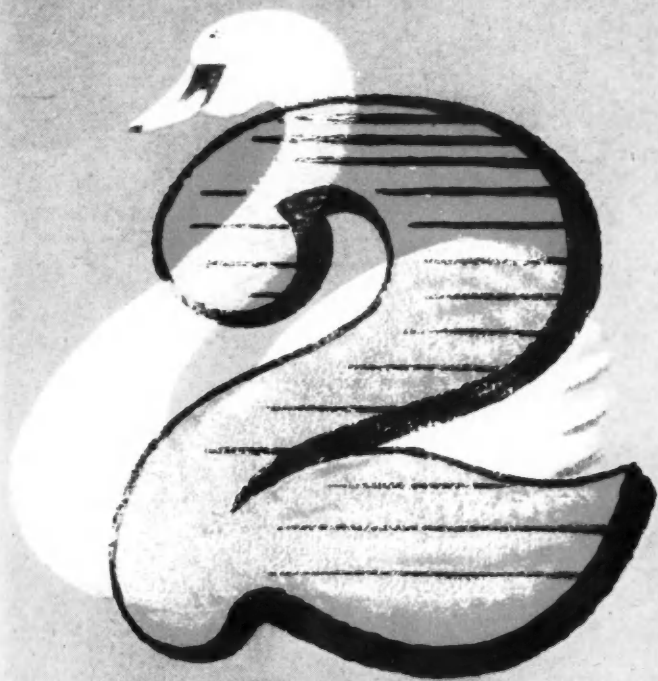
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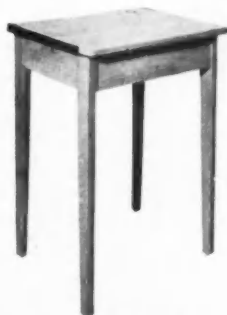
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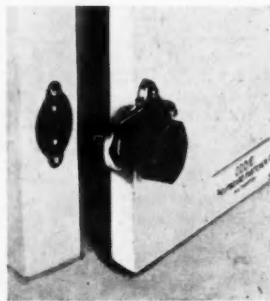
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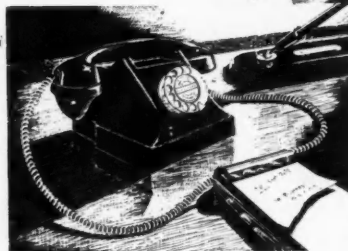
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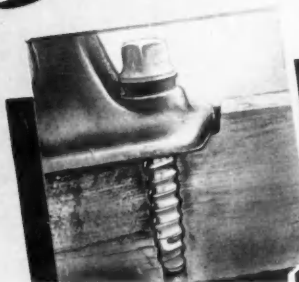
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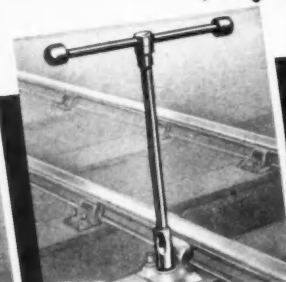
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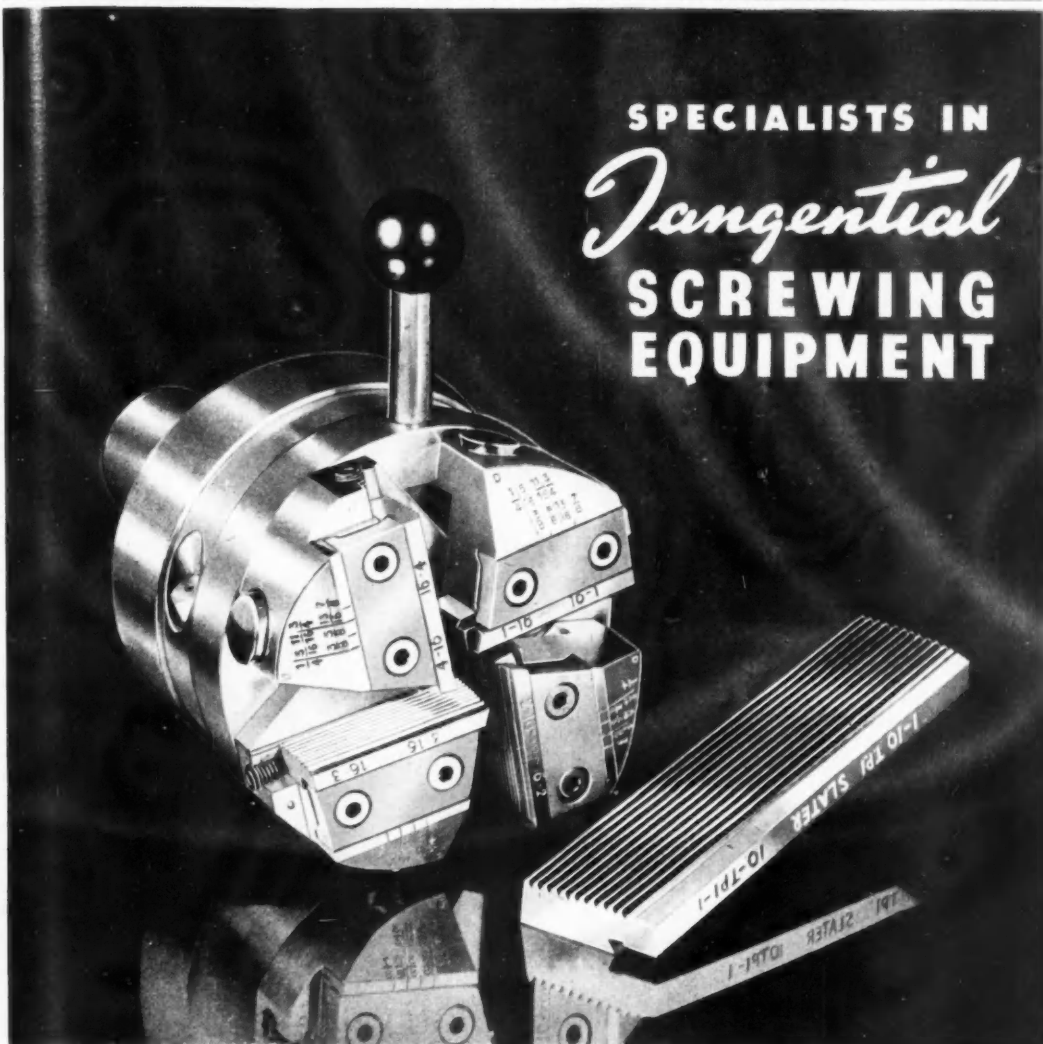
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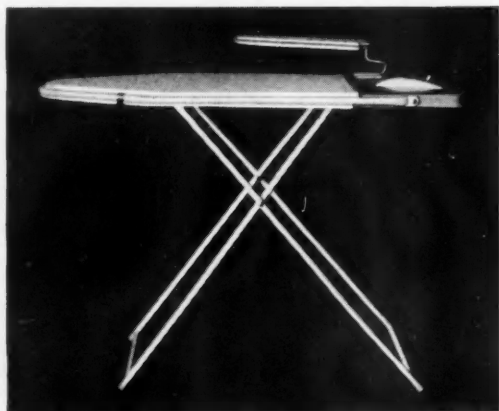


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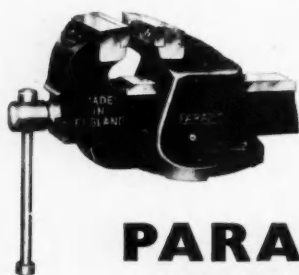
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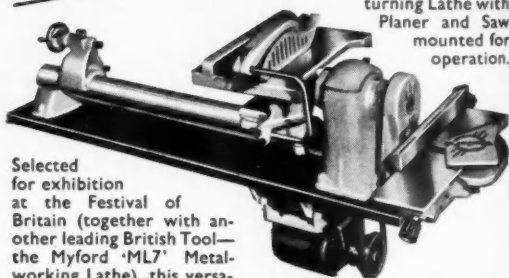
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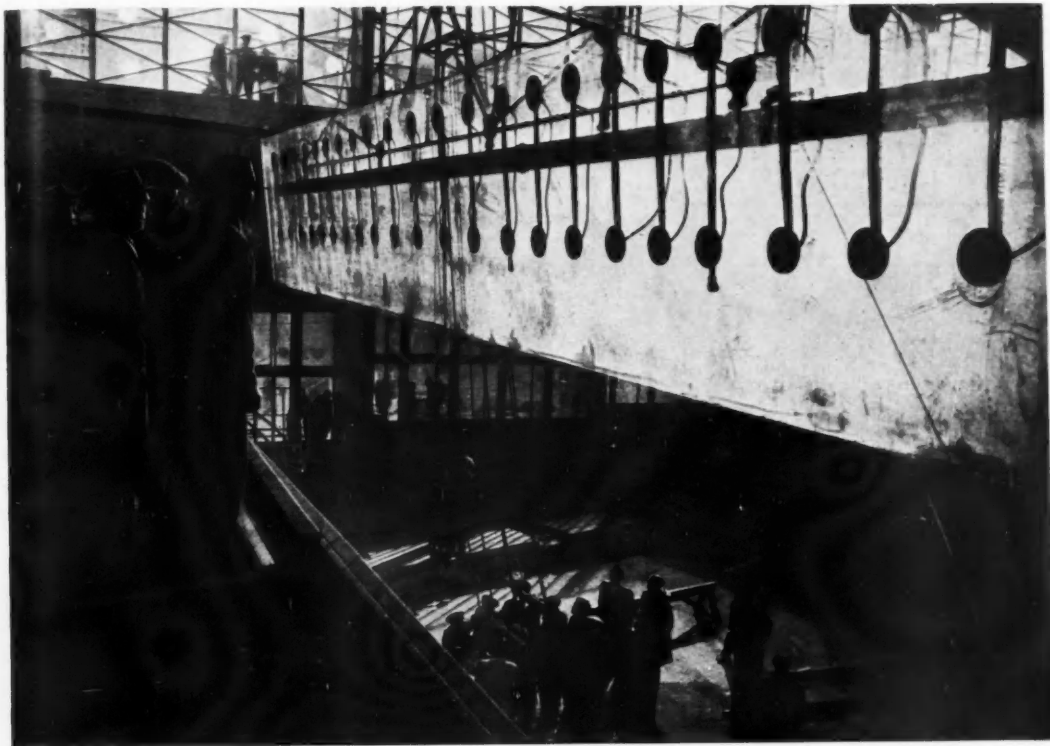


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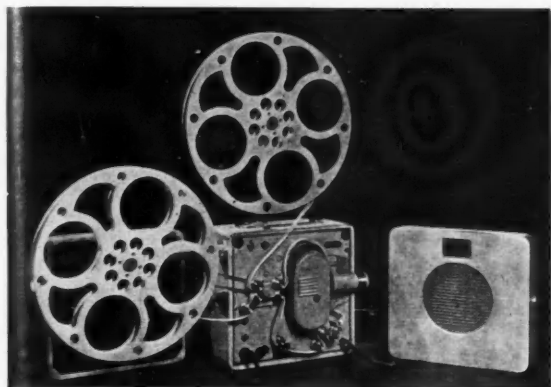
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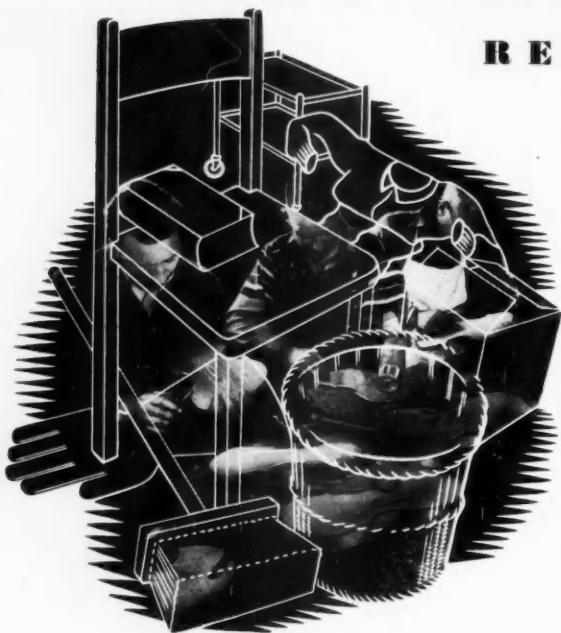
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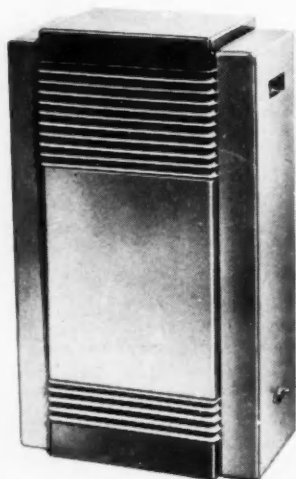


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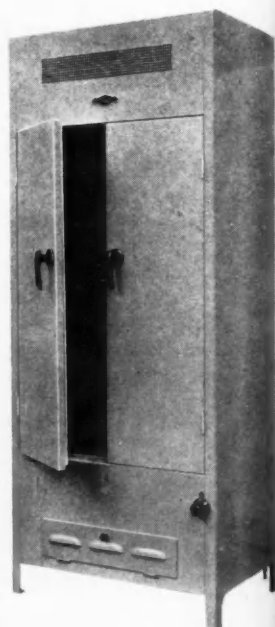
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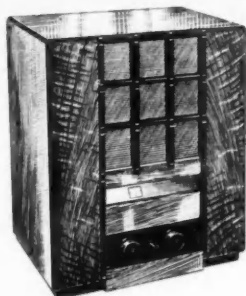
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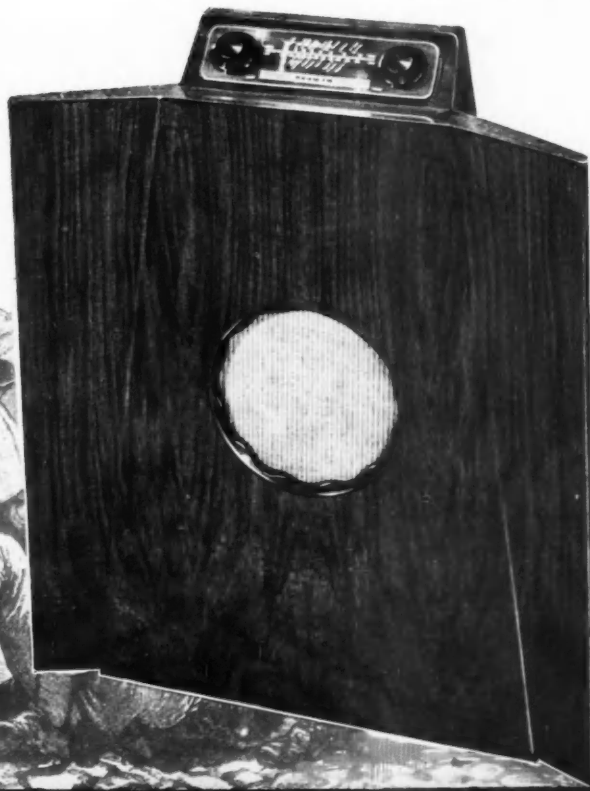
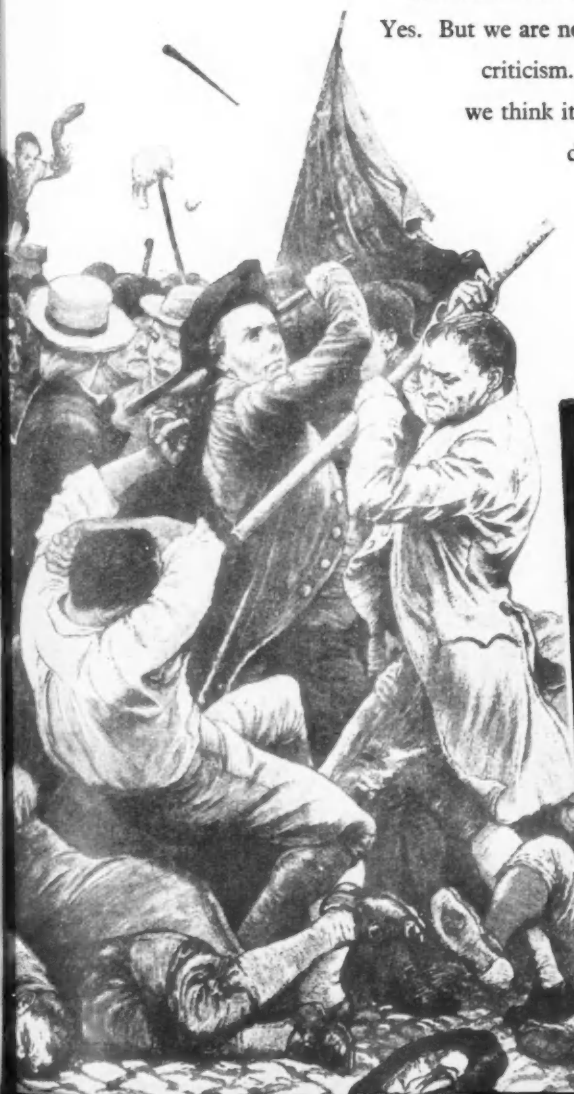


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